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**DEVELOPING THE GENERAL PLAN OF NATIONAL CURRICULUM  
FROM THE PERSPECTIVE OF KEY COMPETENCES’ DEVELOPMENT**

531.01 GENERAL THEORY OF EDUCATION

Abstract of the doctoral thesis in education science

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## CONCEPTUAL LANDMARKS OF THE RESEARCH

**The relevance and importance of the topic** stem from the demanding context of changes and transformations occurring in the field of education at present. These changes are driven by the evolution of knowledge and the specificity of learning in the 21st century, as well as the issues facing the contemporary world and the crises in today's society, including the following: the mismatch between educational offerings and personal and social demands, the lack of alignment between disciplinary knowledge present in the current curriculum and the educational goals stipulated in the Education Code of the Republic of Moldova, the lack of relevance in the academic outcomes of the current teaching process, functional illiteracy among students, and more.

These observations are among the general problems of the education system mentioned in the Education 2030 Strategy: "(...) excessive focus on disciplinary approaches at the expense of transdisciplinary and interdisciplinary approaches; (...) insufficient utilization of the Council of Europe's key competences for the 21st century and key competences for sustainable development" [18, p.24].

The research conducted in the field of the subject has demonstrated that the curriculum design of the general plan of primary, lower secondary and upper secondary national curriculum (the general plan, GP) depends on the quality of the educational outcomes engaged by the system and the teaching process, defined today in terms of key competences. Therefore, the insufficient valorization of these competences in the curricular development of the general plan highlights the relevance and the importance of the research for the educational context. Furthermore, due to the partial or conjunctural nature of the reforms carried out so far in general education, the reforms have not led to an increase in the efficiency of the educational process and, implicitly, the learning outcomes, as they have consistently avoided a real reform of the curriculum.

Thus, it has been observed that the essential problem, which should have been addressed by the education reform in the Republic of Moldova immediately after the elaboration of new objectives (ideals, purposes, strategies, objectives, etc.) based on which the new general plan and new school curricula/programs should have been reconstructed through fundamental pedagogical research, has only been partially solved, only on certain segments. The educational objectives established in the

Education Code in the form of key competences [6, art.11] have not been transposed into the general plan and implemented through the curriculum in the educational process [15].

The adoption of the concept of competence-based instruction as a direction for the development of the national curriculum, and implicitly the national general plan, obliges educational research in the Republic of Moldova to thoroughly reconsider the current framework plan and requires its reconceptualization from the perspective of the new objectives established in the Education Code, namely the key competences.

**Description of the research field situation.** The theoretical and methodological research is based on ideas, concepts, and theories derived, developed, and utilized from reference authors and the guidelines of educational policy documents, as follows:

*Ideas regarding learning approaches:* J. Dewey (learning by doing); J. Piaget (holistic approach to knowledge/learning); S. Klein (models of integrating learning); L. Sauve (integration of subjects); E. Joiță (constructivist instruction), etc.

*The significance of the competence concept addressed by* N. Chomsky, B. Rey, M. Minder, V. Cabac, M. Hadirca, V. Fluieraș, S. Cristea, L. Ciolan, etc.

*Ideas and concepts regarding curriculum development and the framework of the educational plan* (V. Cojocaru, A. Marga, S. Cristea, Vl. Guțu, A. Gremalschi, T. Callo, M. Hadirca, etc.)

*The theory of school curriculum* (J. Dewey, Vl. Guțu, S. Cristea, etc.)

*Learning theories* - B. Bloom (theory of effective learning), J. Piaget (constructivist theory of genetic structuralism), D.P. Ausubel (theory of complex school learning); Multiple Intelligences Theory (H. Gardner)

*Concepts from:* D.P. Ausubel (psychology of school learning); P. Clarke (learning communities); X. Roegiers (integration of school acquisitions); L. D'Hainaut (educational objectives), Ph. Jonnaert (curriculum and competences)

*National policy documents* (Education Code, Framework of the National Curriculum, Education Strategy 2020 and 2030) and international documents (Council of Europe Recommendations 2006 and 2018, UNESCO Report "Transforming Education" 2022, etc.).

**The analysis of the afore-mentioned studies has allowed for the highlighting of major contradictions between:** the mode of designing education and learning in educational policy documents (The Education Code of the Republic of Moldova, The Framework of the National General Plan of primary, lower secondary and upper secondary curriculum, The Framework of the National

Curriculum) and the profile of competences required from graduating students in the current societal context; between the high quality level of pedagogical research conducted regarding the new design and planning of learning and the insufficient degree of integration of these findings into the practice of designing and planning education, with the aim of shaping students' functional general knowledge expressed today in terms of key competences.

Based on these problems and contradictions, the following **research problem** was formulated: on what principles should the new general plan of primary, lower secondary and upper secondary curriculum be based, and what are the theoretical and methodological foundations required to adjust it to the perspective of developing key competences?

**The object of this research** was the process of developing the general plan of primary, lower secondary and upper secondary curriculum from the perspective of fostering key competences. It was based on identifying concepts and possible methods for aligning it with the reconfigured educational context, considering the key competences needed by students in general education for better social integration and life preparation.

**The aim of the research** was to determine the theoretical and methodological foundations, the principles of generation, and the design modes of learning in a new educational plan framework developed from the perspective of fostering key competences and aligned with the demands of the current society. This involved developing a theoretical model, a methodology for development, and the necessary tools for implementing the plan at the institutional level.

**The afore-mentioned aim encompassed the following research objectives:** 1) analyzing the issues of the current general plan of the primary, lower secondary and upper secondary curriculum from the perspective of educational innovation trends and learning reconfiguration models in the context of contemporary society; 2) determining the theoretical and methodological references for conceptualizing the development paradigm of the curriculum general plan from the perspective of key competences; 3) developing a pedagogical model for the development of the general plan of primary, lower secondary, upper secondary integrated key competences based curriculum and the algorithm for its implementation; 4) developing a training program for school managers and the methodology for its implementation at the institutional level; 5) conducting experimental validation of the training program, algorithm, and methodology for implementation; 6) interpreting the experimental results, formulating general conclusions, and making recommendations.

**Research hypothesis:** The development of the general plan of the primary, lower secondary and upper secondary curriculum in the Republic of Moldova from the perspective of key competences is possible if :1) the pedagogical model of the general plan of the primary, lower secondary and upper secondary curriculum development from the perspective of key competences is developed, structured on the basis of the most relevant concepts, theories of curriculum development; 2) the algorithm of the general plan of the primary, lower secondary and upper secondary curriculum development from the perspective of key competences is developed; 3) a training program for school managers is developed in order to prepare for the implementation of the curriculum model developed from the perspective of key competences; 4) managers are trained in the context of effective implementation of the curriculum developed from the perspective of key competences.

**The research methodology** involved the use in the investigative and experimental approach of theoretical methods: scientific documentation, study of educational policy documents, theoretical modelling, context analysis, comparative study, comparison, interpretation, synthesis, observation, generalization, abstraction, etc.; of praxeological methods: questioning, pedagogical experiment (diagnosis, observation, training, control, validation), methods of collection, statistical-mathematical processing and interpretation of experimental data, evaluation method through expertise, focus-group method, etc.

**The theoretical innovation and scientific value of the research are aimed at:** systematizing the theoretical and methodological foundations of the possibilities of developing the general plan of national curriculum from the perspective of key competences; elaborating the paradigm of developing the general plan of curriculum from the perspective of key competences; determining the mechanism of implementing the model; elaborating the program and the methodology of training school managers to implement the new curriculum.

**The applied value of the research lies in:** the valorization of the mechanism of implementation of the developed pedagogical model, the experimental validation of the mechanism of development and the new model of the curriculum general plan developed from the perspective of key competences, the training program, and the methodology of its implementation in general education.

**Scientific results submitted :** characteristics of education in the current context of designing and organizing learning, systematized as a starting point in the development of the curriculum from the perspective of key competences development; new principles and methods of generating a new

curriculum general plan from the system of key competences transposed in the Education Code; the paradigm of curriculum general plan development from the perspective of key competences' development; the algorithm of curriculum general plan development from the perspective of key competences' development; the training program and methodology of curriculum implementation at the level of educational institutions.

**Approval of the research results.** The scientific results of the research were discussed and approved in the meeting of the Mentoring Committee, in the annual reports presented in the meeting of the Council of the Doctoral School, through researcher activity (2020-2023) in the framework of the national research project 20.80009.0807.27 *A Reconfiguring the learning process in general education in the context of societal challenges*, workshops, communications at national and international conferences. The implementation of the scientific results was achieved through the meetings of the Quality of Education sector of the Institute of Education Sciences, through the dissemination of research results in communications at national and international scientific workshops and conferences, through authored scientific publications, as well as through the valorization of the results of the pedagogical experiment, the program and methodology for training school managers. The experimental research was carried out at the Tiraspol State University based in Chisinau, Institute of Education Sciences, in the academic years 2020-2021, 2021-2022, the experimental sample consisted of 227 teachers and 37 managers.

**Publications on the topic of the thesis:** the research results were published in 17 scientific papers, including 5 scientific articles published in journals from the National Register of Journals (category B), 7 materials of scientific conferences (held in Moldova and Romania) and 4 chapters in collective monographs: 2 published in the Republic of Moldova and 2 in Poland, 1 collection of public policy studies.

**The structure of the thesis:** introduction, three chapters, general conclusions and recommendations, bibliography of 162 titles, 13 annexes, 177 pages of basic text (up to Bibliography), 31 figures, 18 tables, results are published in 17 scientific papers.

**Keywords:** education, learning, general plan of curriculum, school subjects, educational aims, pedagogical integration, pedagogical principles, graduate profile, core curriculum of general knowledge, key competence, inter- and trans disciplinaryity, cross-curricular themes, curriculum, training program, school managers.



## CONTENT OF THE THESIS

**The Introduction** argues the importance and topicality of the research topic, reveals the problems and dysfunctions existing in the current general plan of primary, lower secondary and upper secondary national curriculum (GP), formulates the aim, objectives, the scientific problem to be solved, mentions the theoretical and practical value of the results obtained, and indicates the ways of approving the scientific results obtained because of the research.

**In Chapter 1**, entitled *The reconstruction of education and the specifics of learning in the context of today's society*, the analytical framework of the organization of learning in the perspective of European trends and the distribution of time for instruction as a starting point for the GP is presented.

The analysis of the organization of learning revealed that current education does not value learning of integrated type, approachable through inter- and trans disciplinarity, which are treated as real possibilities for making learning more effective and reconfiguring it towards the development of key competences (KCs). Moreover, the GP does not value the method of pedagogical integration in designing learning contents to make learning more effective [16,17,26].

Thus, the ability of the education system and process to achieve their general functions, at a higher level, through the aims of education is characterized by a dissonance between aims, general objectives and specific competences formed in students that diverge from the parameters of the quality of education proposed by S. Cristea [8, p.97].

The analysis of the taxonomy of key competences in the Education Code in relation to the Council of Europe Recommendations of 2006 [23] and 2018 [24] established their central status in national and European education policies and their role in the learning design, as well as the trend of integration of some key competences, with the emphasis on functional literacy as a basic competence for the formation/development of other key competences.

As a result of the analysis of the concept of key competence in the European space we have established that due to its complexity, competence is not only difficult to form and assess, but also difficult to define and there is no consensus on this issue.

The study of the curricular design documents revealed that now, the GP in the Republic of Moldova does not reflect in any way the design of learning from the perspective of achieving the educational goals established in the Education Code.

At the same time, European countries have adopted different approaches in supporting KCs development through compulsory general education. To observe the ways in which KCs are integrated into general primary and secondary education in different countries, a comparative analysis of how KCs are promoted in European countries and in the Republic of Moldova is presented. This study established that there are three main ways in which cross-curricular KCs can be integrated into the curriculum in primary and secondary education: *they can have cross-curricular status, they can be integrated into the curriculum of existing subjects, or they can be introduced as separate curricular subjects.*

As the GP in the Republic of Moldova is already overloaded to examine the introduction of KCs as separate curricular subjects, in order to establish trends in the design of learning and the distribution of time allocated for instruction in EU countries, a comparative analysis at core curriculum and flexible curriculum level of time allocated for instruction in primary and lower secondary education for EU and OECD countries and the Republic of Moldova over a 10-year period was carried out and findings formulated.

The findings revealed different fluctuations of time for instruction in EU and OECD countries in both primary and lower secondary education in the core curriculum compared to its non-flexibility in GP in the Republic of Moldova, as well as a higher share of time for instruction allocated to compulsory subjects in the Republic of Moldova [25].

To observe the development trends of GP in the context of European trends of educational development and national curricular developments, a complex system and functional analysis of GP is carried out, taking the methodology proposed by Al. Crisan, D. Georgescu, A. Cerchez [12] over a 20-year period, in the horizontal and vertical evolution of GP and formulated findings and conclusions.

Among the findings is the fact that the current GP does not consider the inter- or transdisciplinary integration of the study objects, given the new aims of education - KCs - which require the reorganization of learning from this perspective, given their transversal nature. The discontinuities between levels regarding some subjects or groups of subjects, such as art education and technology education, demonstrate the lack of coherence in education policy, in terms of the ideal and the aims set out in the Education Code itself.

There is a break between the number of hours for primary and 5<sup>th</sup> grade, making the transition from one grade to another more difficult for the student. A second break between the two stages of general education, primary and secondary, in terms of the number of hours per week from 22 to 28.

Thus, GP is not structured in terms of the aims of education, as set out in the Education Code - the formation of KCs: the introduction of new subjects of study, such as Personal Development and the existence of only one optional hour for this purpose at primary and secondary level of the education system, does not ensure the individualization of learning nor the development of all KCs by each pupil during compulsory education.

The system and functional analysis was complemented by the analysis of the evolution of the GP for grades I-IX for 1990-2023, which identified precedents for the integration of curricular content, namely the integration of the subjects *History of Romanians and Universal History*, *Science* (primary classes), *Romanian Language and Literature*, but none of the changes made in the GP essentially concerned the structure of the GP in terms of the development of the necessary competences for the pupil, and many of the KCs with transversal status are not covered in the list of compulsory subjects.

Therefore, the analysis found that so far, a core curriculum of general knowledge (CCGK) / the basic formation of the pupil's personality has not been clearly specified in the curriculum, as well as the way in which the optimal relationships between the CCGK subjects and their contribution to the formation of KCs have not been reflected [25].

The examination of the trends of reconstruction in education and reconceptualization of learning demonstrated that it is the KCs that should be the main vector in the development of curriculum policy documents, and that the current GP no longer meets the needs of designing learning in the light of the new aims of education.

**In Chapter 2**, entitled *The paradigm of curriculum development from the perspective of key competences' development*, the conceptual and methodological framework of curriculum development from the perspective of KCs development is presented, the paradigm of curriculum development from the perspective of KCs development is reflected, the principles of generation are identified and the model of curriculum development from the perspective of KCs development is outlined.

By leveraging the principles and developing an algorithm of the general plan of curriculum development from the perspective of KCs development, the new curriculum model, the training

program for school managers on the implementation of the curriculum at the level of the educational institution and its implementation mechanism are presented.

Thus, the paradigm of GP development is based on the updated concept of GP as a component part of the national curriculum fortified by S. Cristea [7, pp. 236-237] and the types of curricula according to Vl. Gutu [13, p.76], the conception of GP as a global curriculum project that must be designed as a whole, as well as the general characteristics of GP, apud S. Cristea [7, p.748 ], on the argumentation of the need for its curricular reconstruction exposed in chapter 1; on the valorization of the functional-pragmatic vision of learning design, the principles of development/optimization of GP among which we highlight the principles of individualization, decongestion, functionality etc. based on S. Cristea [ibidem] and Vl. Gutu, [idem], the concepts of KCs, inter- and transdisciplinary approach, integrated learning, cross-curricular themes.

Cross-curricular themes (CCTs) apud L. Ciolan [5] and L. Franțuzan [2] in the curricular construction of PE and the objective and subjective factors employed in designing the aims of the education system.

At the same time, we use in the framework of the GP development paradigm apud S. Panțuru et al [20, p.197 ] the concept of curricular cycles to determine the core curriculum of general knowledge and the subjects of compulsory study and curricular cycles: *the cycle of fundamental acquisition (Preschool group, grades I and II), the development cycle (grades III - VI), the observation and orientation cycle (grades VII - IX), the deepening cycle (grades X - XI), the specialization cycle (grade XII).*

At the basis of the reconstruction of the curricular areas are the six basic competences, KCs for lifelong education, which, if we relate them to the current curricular areas, could constitute the general objectives of GP, i.e. the basic goals to be achieved through the educational process, according to S. Cristea: the competence of verbal intelligence, the competence of mathematical and computer scientific intelligence, the competence of explanatory/experimental scientific intelligence, the competence of interpretative/ historical, socio-human intelligence, the competence of applied/technological, aesthetic, psychophysical intelligence, the competence of psychosocial/ interpersonal, intrapersonal intelligence [10, p.92].

Based on the local context, in the GP we will take CCTs related to complex problems and the afore-mentioned basic competences correlated with Education for Science, Technology, Engineering and Mathematics ( STEM) and adapt them to the local educational context and the ideal of education

in the formula: *Linguistic and Literature Education for literacy and intercultural dialogue, Education for Science, Technology, Engineering and Mathematics (STEM), Education for identity, democratic citizenship and human rights, Education for arts and a healthy lifestyle and Education for personal development and career orientation.*

These changes will create the necessary conditions for KCs in general education through a holistic approach to learning, introducing them into the GP allowing inter-, intra- and transdisciplinary approaches to learning and linking KCs to the specific competences of the core curriculum compulsory subjects.

The conceptual frameworks presented above, the system of principles and the pedagogical concepts used served as a basis for the theoretical modelling of GP in a curricular sense from a KCs perspective. The pedagogical model proposed for the development of GP offers a new perspective to solve some major problems existing in the current educational process: the incoherence between the documents of educational public policies and those of curricular design at the level of design and implementation of the aims of education - KCs, as well as overcoming the traditional monodisciplinary mode of educational planning, which limits the development of KCs, by reconstructing GP from the same perspective, taking advantage of inter- and transdisciplinary approaches to learning.

The pedagogical model of GP development for general education (Figure 1) consists of several component parts organized in two major columns: the left column reflects the conceptual framework of GP development, and the right column reflects the implementation framework and the optimal conditions to be met to ensure the implementation and monitoring of GP implementation and the adoption of interventions necessary to improve the quality of the educational process achieved.

In the structure of the new GP model, the concepts of KCs, integrality of knowledge, inter- and trans disciplinarity, cross-curricular themes, cross-curricular areas, the ideal of education, curricular cycles, etc. are used and offer a new perspective to solve some major problems of the educational process: the incoherence between educational public policy documents and those of curricular design at the level of achieving the aims of education: KCs, re-dimensioning the monodisciplinary construction of the GP.

The model developed presents the process component of GP development and should be read from top to bottom and understood as a construct made up of interconnected components that communicate with each other. The development model reflected in the left column should be

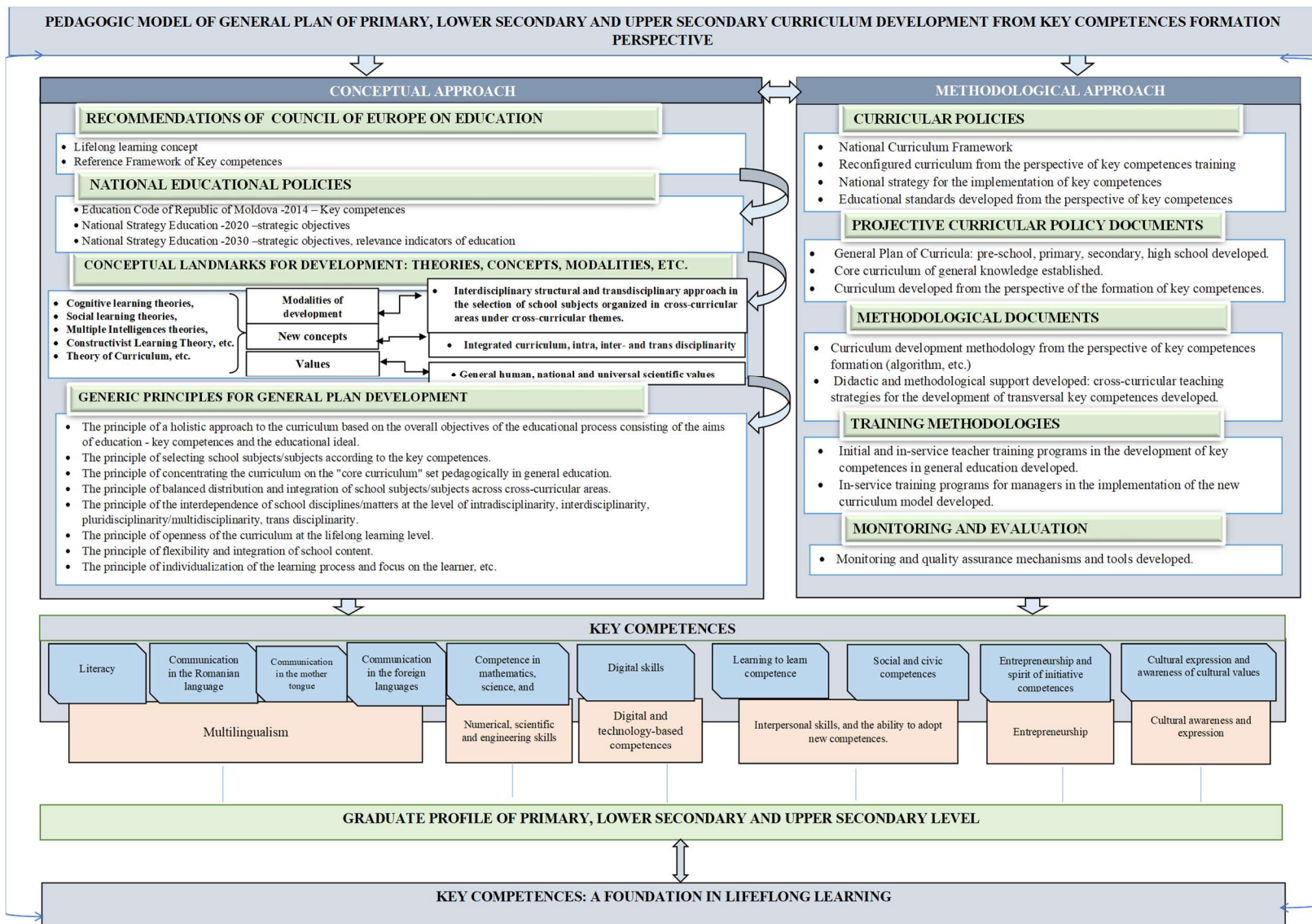
understood as a component connected to the implementation framework on the right, or too often, the design does not communicate with its implementation and evaluation, or core components are omitted and create dysfunction in implementation. The left-hand column reflects the GP development algorithm consisting of 17 steps and covered extensively in subchapter 2.4.

The first part of the model consisting of the left column communicates with the one on the right and both aim at the formation/development of the KCs, these as values that shape the profile of the graduate and aim at achieving the educational goals defined by the KCs as the basis for lifelong learning. *Not only the attributes of the educational ideal should constitute the graduate profile once the aims of education are defined through the KCs as general aims of education.* This perspective starts from the definition that S. Cristea gives to the aims of education "projected through the ideal of education and through the general aims of education" [9, p.13]. Thus, the model values the principles of generation of GP and CCTs defined from the perspective of formation/development of basic competences in the sense of realization of the generic attributes of the educational ideal outlined by *linguistic, literature education for literacy and intercultural dialogue, identity, democracy, healthy way of life, understanding of the surrounding world, personal development, and career planning, etc.* All these reconstructions have as a major objective the realization by the learner of the aims of education through their KCs formation.

In the case of the new curriculum, it is envisaged to associate objects of study from the same field of knowledge: sciences (integration of the curriculum for physics, biology and chemistry) and to integrate them into one and the same learning planning for the curriculum cycles of fundamental acquisition (grades I-II), development (grades III-VI), orientation and observation (grades VII-IX).

For the curriculum cycle of deepening and specialization we consider appropriate the interdisciplinary construction of learning aimed at integrating the basic knowledge located at the intersection (conceptual, normative and methodological) existing between two sciences (chemistry-biology) or (history-geography), and for (physics-astronomy) the intradisciplinary construction, which will aim at integrating the basic knowledge of several branches of the reference science in the didactic structure of the educational subject that will keep the name of the reference science.

We consider both the monodisciplinary approach (for Romanian Language and Literature and Foreign Languages study based on best EU and OCED practices) in establishing the common core and the interdisciplinary approach by integrating several subjects into one, can constitute criteria for the development of the curriculum to ensure the development of the KCs.



**Figure 1. The pedagogical model of developing the general plan of primary, lower secondary and upper secondary curriculum from the perspective of key competences' development**

The general plan developed (GPD) valorization involved the conceptualization and operationalization of the GPD in the following components: the training program for managers on the application of the GPD, the application mechanism of the training program and its implementation methodology.

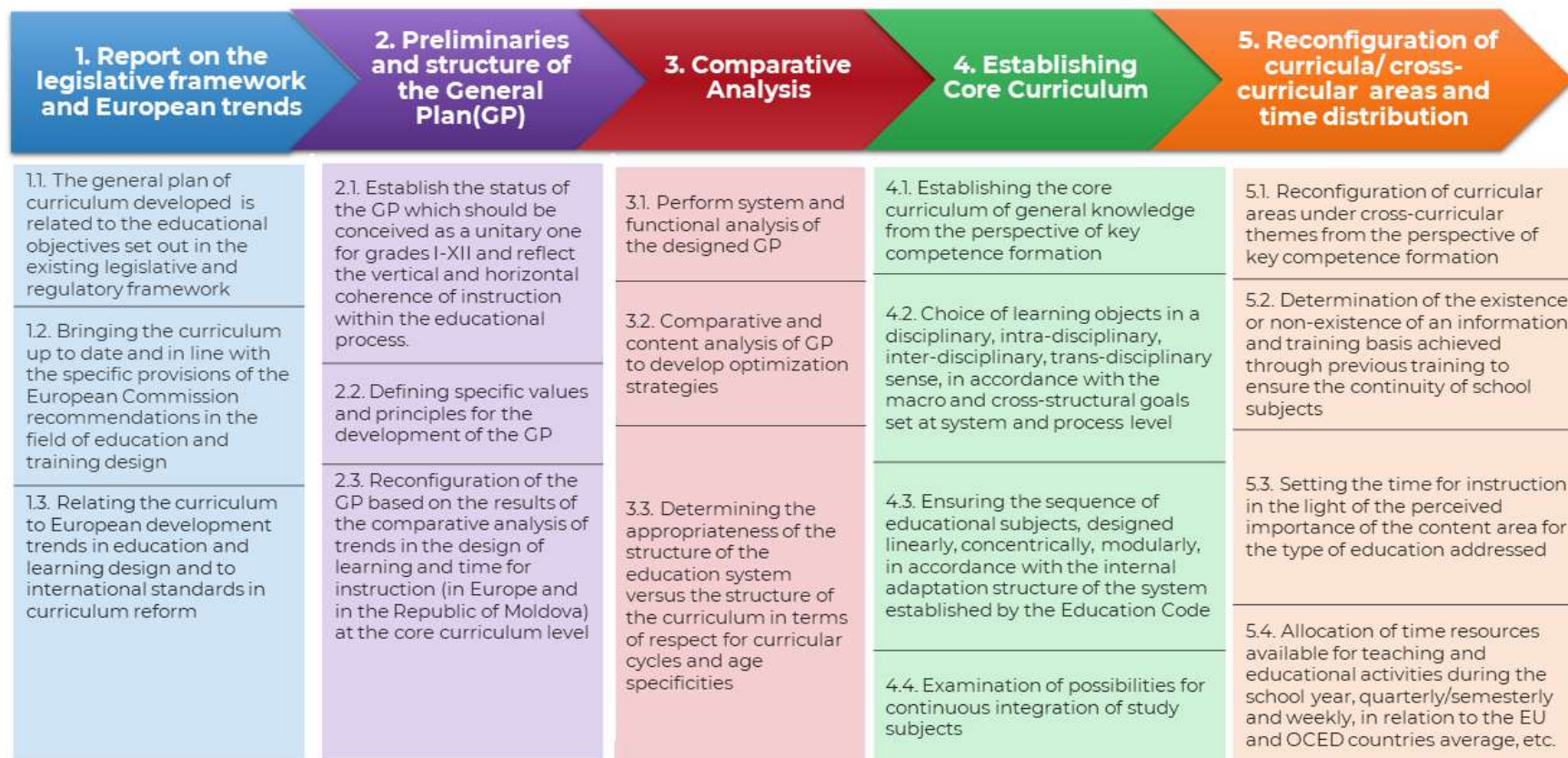
At the same time, the elaboration of the methodology required the determination of the working steps in the GPD development process, which were concretized in a working algorithm specifically developed for the application of the methodology. The methodology also involved the application of the criteria for the analysis of the designed GPD, reflected in chapter 1 of this research, recommended by A. Marga, M. Cerchez, Al. Crisan and others [12], as well as the use of the KCs taxonomy, stipulated as the aims of education according to the Education Code, the concept of the six basic competences, apud S. Cristea [10], the concept of cross-curricular themes and their integration, curriculum integration, apud L. Ciolan [5], core curriculum, apud Vl. Guțu, [13], the concept of time, apud S. Panțuru [20] and C. Cucuș [11], the concept of curricular cycles apud A. Marga, M. Cerchez, Al. Crișan [12], the principles of GP generation, adapted from S. Cristea [7], Vl. Guțu [13], etc. Therefore, the GPD development methodology refers to the processual dimension of development, which involves going through a working algorithm / step, also shown in Figure 2.

The GPD development algorithm takes over the structure components proposed by author Vl. Gutu [13, pp.165-166], presented adapted below, that generated the structure of the new GPD model.

The cross-curricular themes/KCs integration takes over the model developed by R. Legendre and referred to by L. Ciolan [5, p.159] through centripetal interdisciplinarity which we consider conceptually identical to the satellite model proposed by L. Ciolan [Ibidem, p.127].

Next, starting from the structural interdisciplinary construction that S. Cristea [10, p.83-84] transposes within the reconfiguration of the curriculum and the model of integration of some disciplines, we propose the construction of new educational disciplines by integrating them into the curriculum by merging one or more disciplines into one. We propose this type of construction through the integration of the following study subjects: (Physics + Biology +Chemistry) in the integrated subject: Sciences (grades I-IX), Romanian Language and Literature + Universal Literature (grades X-XII); Mathematics + Computer Science (grades I-XII); History + Geography (grades IV-XII), (Arts +Music +Crafts)-Arts and Technologies (grades I-XII).





**Figure 2. General Plan of National Curriculum Development Algorithm from a Key Competences' Development Perspective**

Table 1 shows the GPD that mentions specific competences for some subjects in the core curriculum such as Arts and Technology and Physical Education, History and Geography.

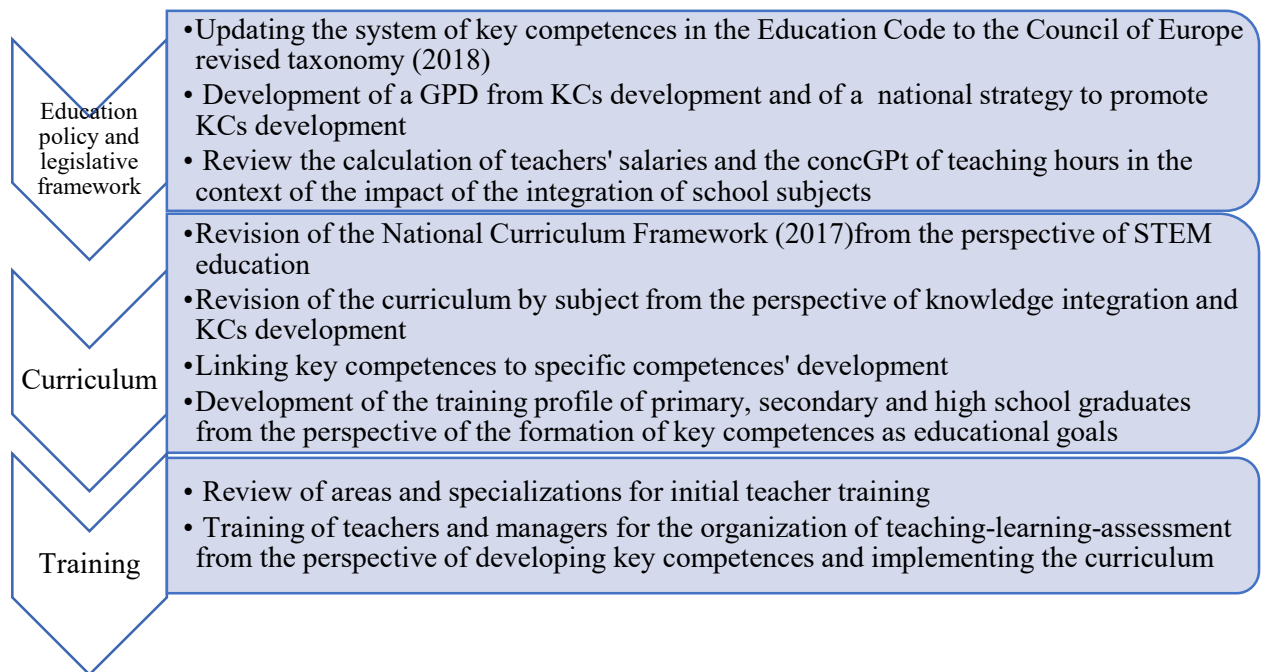
**Table 1. General Plan of Primary, Lower Secondary and Upper Secondary Key Competences' Based Curriculum**

Cross - curricular area  School subject	Primary				Lower secondary					Upper secondary			Specific competences / Key competences	
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII		
<b>Formal Curriculum</b>														
<b>Linguistic and literary education for literacy and intercultural dialogue</b>														
Romanian Language and Literature	6	6	6	5	5	5	5	5	5				KCsC KCsN KCsF	
Romanian Language and Literature + Universal Literature										4	4	4		
Foreign Language I	2	2	2	2	2	2	2	2	2	4	4	4		
Foreign Language II							2	2	2	2	2	2		
Options	0-1	0-1	0-1	0-1	0-1	0-1	1-2	1-2	1-2	1-2	1-2	1-2		
<b>Education for science, engineering and mathematics</b>														
Mathematics and Computer Science	4	4	4	4	4	4	4	4	4	2	2	2	KCsF KCsN	
Science	1	1	1	2	2	4	4	4	4					
<b>Differentiated Curriculum through Extension</b>														
Technology of information and communications										2	2	2		
Biology and Chemistry										2	2	2		
Physics and Astronomy										2	2	2		
Mathematics and Computer Science										2	2	2		
Options	0-1	0-1	0-1	0-1	0-1	0-1	1-2	1-2	1-2	1-2	1-2	1-2		
<b>Education for identity, citizenship and human rights</b>														
History and Geography				2	2	2	2	2	2	2	2	2	Specific competences+ KCsF	
Options	0-1	0-1	0-1	0-1	0-1	0-1	1-2	1-2	1-2	1-2	1-2	1-2		
<b>Education for arts and a healthy lifestyle</b>														
Arts and Technology	2	2	2	2	2	2	2	2	2	1	1	1	Specific competences + KCsN	
Physical Education	1	1	1	1	1	1	1	1	1	1	1	1		
Options	0-1	0-1	0-1	0-1	0-1	0-1	1-2	1-2	1-2	1-2	1-2	1-2		
<b>Education for personal development and career guidance</b>														
<b>Nonformal Curriculum / Education for free time</b>														
Personal development and career guidance	2	2	2	2	2	2	2	2	2	3	3	3	KCsF KCsN	
Flexible curriculum	2	2	2	2	2	2	2	2	2	2	2	2		
Minimum number of hours	18	18	20	20	21	22	24	24	24	25	25	25		
Maximum number of hours	19	19	21	21	22	23	25	25	25	28	28	28		

*Conventional signs used: KCsC- KCs which have subject 'coverage' in the GP; KCsN- cross-curricular KCs which do not have subject 'coverage' in the GP; KCsF- KCs which have fragmentary 'coverage' of several school subjects.*

In order to reflect the balanced allocation of instructional time to the school subjects in the designed GP, a comparative analysis of the proportion of instructional time allocated in the core curriculum in the EU and OECD countries for the same subjects/areas of study was carried out. It reported that the developed GP model respects a balanced proportion of time for instruction allocated in the core curriculum compared to the EU and OECD average.

We anticipate possible difficulties associated with implementing the strategy of integrating two or more school subjects. Therefore, to be implemented, there is a need to develop an implementation mechanism and methodologies that would involve gradual transitions involving all responsible stakeholders from central government to school unit level over a short (0-1 year), medium (3-5 years) to long (10 and more years) implementation timeframe. In methodological terms, it could be represented graphically on several levels of pedagogical intervention which we see as interdependent and involving a hierarchical consecutiveness of actions, but which from the reasoning of the economy of the summary will be summarized and conceptually presented in the figure below (see the model in Table 2.6. of the thesis).



**Figure 3. Levels of Pedagogical Intervention for the Implementation of the new General Plan of Curriculum**

The training program developed for school managers as an instrument of the mechanism of implementation of GPD in educational practice (Annex 12 of the thesis) was validated and approved for implementation by the management of the Tiraspol State University based in Chisinau and applied in a hybrid format with synchronous and asynchronous activities with a selection of three modules. It was used for the training experiment described in the next chapter.

**Chapter 3**, entitled *Experimental approaches to the valorization of the model and methodology for the development of the general plan of curriculum*, presents the experimental research approach, which involved the organization and conduct of the pedagogical experiment in four stages: the diagnostic stage, the training stage, the control stage, and the experiment of validation of the model by means of the expert evaluation method.

The research hypothesis from which we started in the experimental research was formulated as follows: the pedagogical model of curriculum development from the perspective of key competences' formation will be developed, structured on the basis of the most relevant concepts, theories of curriculum development; the algorithm of the curriculum development process from the perspective of key competences' formation will be developed; a training program for school managers will be developed in order to prepare them for the implementation of the curriculum model developed from the perspective of key competences' formation; managerial staff will be trained in the context of effective implementation of the curriculum development process developed from the perspective of key competences' formation.

For the purpose of carrying out the stages of the pedagogical experiment, a sample of teachers and managers was selected, which is presented in the table below.

**Table 2. Sample of pedagogical experiments**

<b>Stages</b>	<b>School teachers from secondary education</b>	<b>School directors from secondary education</b>
1. The pedagogical experiment of diagnosis	Group 1a- 98 Group 2- 48 Group 3 – 81	Group 1b- 18
2. The pedagogical experiment of training		Focus- group 13
3. The pedagogical experiment of control		Focus-group 13
4. The pedagogical experiment of validation through expertise		Focus-group 6
<b>The total number of participants</b>	<b>227</b>	<b>37</b>

The pedagogical experiment of diagnosis was carried out from August 2021 to June 2022 and involved 227 teachers and 18 general education school managers selected according to homogeneity of level and composition, three groups : Group 1a-teachers teaching different subjects of education, Group 2b-teachers teaching subjects in the Language and Communication area, Group 1b-managers from general education and was conducted in two phases aimed at: determining the contents targeted for verification and highlighting the existing contradictions between the possibilities of theory and the needs of educational practice regarding the achievement of educational goals and identifying opportunities for curriculum development from the perspective of KCs formation.

**Research methods applied:** questionnaire method (Annex 3,5,6 of the thesis), statistical method.

As a result of the experiment and analysis of the data (see fig. 3.1.-3.13 from the thesis), the following conclusions were drawn: both teachers and managers correctly perceived the role and major importance of KCS training in preparing students for life, but they were not aware of the need to include the aims of education in GP. Teachers and managers confirmed the validity of the directions for the development of a new model plan from the perspective of KCs formation, namely, revision of the number of hours allocated to each subject of study, revision of curricular areas according to KCs and integration of new modules/areas, establishment of the core component and flexibility of other components of the GP. Both teachers and managers confirmed the need for training to prepare them for the implementation of the KCs, and the need to develop a special training program from this perspective of KCs training for pupils.

The pedagogical training experiment involved 16 managers from the management training program of Tiraspol State University based in Chisinau, was conducted in June 2022, and aimed to achieve the sixth objective of the present research, namely the experimental validation of the training program and its implementation methodology.

The training program (Annex 12 of the thesis) was validated and approved for implementation by the management of the Tiraspol State University based in Chisinau and applied in a hybrid format with synchronous and asynchronous activities with a selection of three modules, as follows: *Module I. European and national regulatory framework of public policies on key competences, Module II. Curriculum - framework vs. key competences, Module III. Strategies for the development and implementation of the curriculum framework at the level of the educational unit.*

**The aim of the program:** to develop the professional skills of managers to critically analyze national curriculum policy documents, including the curriculum, and to implement the curriculum at school level, developed from the perspective of the formation of key competences of pupils. This aim targeted the following objectives: raising awareness of managers on the need to align the educational process with European trends and the aims of education associated with the students' development of key competences; exploring the formative values of the pilot GPD model; increasing awareness and assumption by managers of the role of authentic leadership in order to achieve relevance and quality of the educational process; developing human resource management skills in order to increase the collaborative institutional culture of teachers.

**Targeted competency:** implementation at school level of the general plan of curriculum developed in the perspective of pupils' key competences formation.

**At the stage of the control experiment** 16 managers were involved in the training experiment (see Annex 10 of the thesis).

Experimental research methods: questionnaire method - initial evaluation questionnaire (Appendix 7 of the thesis) and final evaluation questionnaire (Appendix 8 of the thesis), statistical method.

The questionnaires served as data collection tools to verify the impact of the training experiment: measurements were made, comparisons and interpretations were made, the results were statistically processed and arguments in favor of the research hypothesis were gathered. The managers in the control group completed an initial evaluation questionnaire (see Annex 10 of the thesis), the results of which can be seen in detail in the appendices (see Annex 11 of the thesis). The results of the respondents in the experimental group (see Annex 11 of the thesis) were analyzed in terms of the impact of the training approach of the training strategies applied in the training experiment and interpretations were made in relation to the objectives of this research.

Therefore, the results of the respondents in the experimental group, analyzed by comparison and contrast with the control group, allowed the following findings and conclusions to be formulated: the training experiment highlighted the relevance of the training strategy and its application methodology for managers applying GPD at school unit level; the results indicated the need of managers for continuous training in the context of implementing an GPD model; the training experiment identified main directions of action in the context of promoting authentic leadership at

school unit level in the process of GPD implementation; managers identified some directions of improvement capitalized in the pedagogical model of GPD development.

A focus group of 6 highly qualified managers selected as experts participated in the GPD validation pilot phase and were asked to use expert judgement in assessing the GPD model and were asked to analyze the product based on a system of analysis criteria. The system of evaluation criteria used in the GPD development process in the present research was based on the constructivist model of evaluation of the designed school curriculum elucidated by author I. Achiri [1, pp. 38-45] and I. Achiri, N. Bucun et al [3, pp.13-27], Vl. Gutu and I. Achiri [ 14] which are presented in detail in Table 3.5 of the thesis and summarized as follows: the criteria of conformity, adherence, relevance, pertinence, coherence, applicability, internal effectiveness, feasibility, and external effectiveness.

The validation experiment aimed at validating the GPD development methodology, development algorithm, GPD model and implementation mechanism.

**Experimental research methods:** focus-group method, expert evaluation method: individual expertise, morphological expertise, rating method, comparative analysis, context analysis, content analysis, association matrix, etc.

In this stage of the experiment the following methods of expertise were used based on the algorithm presented below, adapted from the authors P. Lisievici [19], I. Achiri and others [1, 3], Vl. Gutu, N. Bucun, L. Pogolsa and others [3, p.178-179, 87, p.185 ]: the organizer of the expertise (the author of the present research) presented to each expert the information about the purpose of this action and the evaluation tool including the evaluation grid, and the context of its application ( see Annex 13 of the thesis); each expert practitioner independently performed the proposed task; the organizer of the expertise accumulated the results of the expert practitioners and reflected the individual score given by the expert practitioners (see Table 3. 4 of the thesis); the expert organizer processed the data and formulated the experts' conclusions, generalized the arguments; the results of the data processing and generalization were communicated to the expert group; the experts were given the opportunity to argue their points of view if they had a different opinion from the collectively generalized one.

Based on the analysis of the results of the evaluation of the curriculum, we can formulate the following findings: managers appreciate the content of the training designed in the plan that is largely relevant to the overall purpose and objectives of the current education. The results of interpreting the data collected in the observation experiment confirmed the research hypothesis - the need to develop

a foundation for the development of GPD, as well as a mechanism for implementing the general plan of curriculum developed from the perspective of key competences formation and the methodology of its implementation at the educational unit level.

The conduct of the training experiment demonstrated the soundness of the algorithm developed for the validation of the training program and its implementation methodology.

The results of the control and validation experiment by means of the static expertise method contributed to the improvement of the developed curriculum model and validated its applicability from the perspective of achieving the educational goals.

## **GENERAL CONCLUSIONS AND RECOMMENDATIONS**

The research conducted on the topic *Developing the General Plan of National Curriculum from the Perspective of Key Competences' Development* focused on one of the current issues in education regarding the streamlining of the educational process by redesigning its design in the curriculum from the perspective of key competences. The study focused on the analysis of the situation in the field of the research topic, in relation to other plans and ways of designing learning, on the determination of theoretical and methodological bases for development and ended with a paradigm of re-conceptualization of the curriculum from the perspective of key competences development and related tools for its implementation.

The synthesis, interpretation of the theoretical bases and results of the experimental research on the development of the curriculum framework from the perspective of the formation of key competences confirm the aim of the research by achieving the intended objectives. The findings made in developing the analytical, theoretical, and methodological framework of the research allow the following general conclusions to be drawn:

1. Analysis of current trends in the reconfiguration of learning towards the formation of key competences needed in life, highlighting the existing problems in the current curriculum, elucidation of the possibilities of reconstructing learning to orient the educational process towards the formation of key competences are the basic arguments for its reconstruction in accordance with the goals projected at the level of the educational system and process.
2. The elaboration of theoretical and methodological references, of the pedagogical model for the development of the curriculum from the perspective of key competences formation is in line with the actions of curricular reform and global design of the contents of instruction, with



the aim of making learning more effective, as a process and a product, by integrating contents and equipping students with a system of key competences required in the contemporary society.

3. Basically, the research carried out on the topic *Developing the General Plan of National Curriculum from the Perspective of Key Competences' Development* aimed at solving an important and topical problem for the current educational system and process in the Republic of Moldova, which is in the process of change and development, for the solution of which the following innovative scientific products were developed: general plan of curriculum development paradigm, general plan of curriculum design algorithm developed from the perspective of key competences' development, the general plan of primary, lower secondary and upper secondary curriculum developed from the perspective of key competences formation, and the general plan implementation mechanism, including the training program for school managers on new general plan of curriculum implementation.
4. Reconfiguration of the educational process towards the formation of key competences, by developing the curriculum from the same perspective, involved identifying and utilizing new principles, concepts and ways of developing the learning process, such as: STEM Education, cross-curricular topics, integration of the contents of instruction etc) and this allows the Moldovan education system to advance along the path of curriculum development, through inter- and transdisciplinary approach to learning, in order to foster the implementation of key competences in general education.
5. The development of the general plan of curriculum from the perspective of the formation of key competences is a foundation for further reforms in education, through a different reconfiguration of learning, and this allows the Moldovan education system to advance along the path of curricular development, through an inter- and transdisciplinary approach to learning, to foster the process of implementation of key competences in general education.
6. The development of the curriculum from the perspective of key competences requires a series of transformations that require major external investment in education and the harnessing of human and material resources within the system, including by attracting and training a new generation of teachers who have completed in-service training courses from the perspective of new cross-curricular areas on related disciplines.

7. The implementation of the curriculum developed from the perspective of the formation of key competences implies a series of curricular modernizations and developments at the level of the whole educational system and process, which goes beyond the present research carried out at the level of general education, but harmoniously fits into the concept of lifelong learning, involving other theoretical and methodological developments at other levels of education in the Republic of Moldova, including higher education.

Thus, the scientific problem solved by the present research is confirmed by the elaboration of the theoretical and methodological paradigm/benchmarks for the development of a new general plan of national curriculum from the perspective of key competences formation/ development, which demonstrates the full achievement of the aim and objectives of the investigation.

In accordance with these general conclusions resulting from the theoretical and methodological investigation of the research topic *Developing the General Plan of National Curriculum from the Perspective of Key Competences' Development*, we formulate the following recommendations:

- a) **At the level of the Ministry of Education and Research:** The Ministry may use the theoretical and applied results of this research in the process of reforming the curriculum. To this end, the Ministry should update the aims of the educational process projected in the Education Code, in line with the 2018 Council of Europe Recommendation on the key competences needed to be formed/assessed through the educational process and develop a national strategy to promote key competences in education in the Republic of Moldova.
- b) **At the level of initial and continuing training institutions:** It is recommended to reorganize the specializations proposed for the initial training of teachers and the professional development of school managers in the key of STEM education and key competences development, with the inclusion of integrated teaching-learning modules of the school subjects/ domains, based on the inter- and transdisciplinary approach to learning content.
- c) **At the level of curriculum developers:** Use the applied research results (curriculum development methodology, application tools (development algorithm, training program, criteria for distribution of time for instruction, curriculum areas reformulated according to the graduate profile from the perspective of key competences training, levels, and performance descriptors for key competences) in the development of the school curriculum.
- d) **At the level of research institutions:** Research institutions under the aegis of the relevant ministry will be able to set up working groups to develop methodological benchmarks for the

educational process from the perspective of key competences' development (at primary level), methodological guidelines and teaching strategies related to a training program from the same perspective for teachers.

At the same time, recognizing the limitations of the present research in relation to the very broad topic, we emphasize that the present work creates openings for the development of further research on the possibilities of curriculum development for the following categories of educational institutions in which it is carried out: education in national minority languages, education for bilingual classes, "Step by Step" educational program, special education, artistic profile institutions, sports, etc.

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  1. VIVDICI, A. (cap.) Relevanța politicilor educaționale pentru rezultatele evaluărilor naționale și internaționale ale elevilor În: BEZEDE, R., TERZI-BARBĂROȘIE D., VIVDICI A., et al. *Modernizarea învățământului din Republica Moldova: Studii de politici educaționale elaborate în baza rezultatelor PISA 2015; resp. ed. A. Corețchi.- Chișinău: S.n., 2018, Tipografia Lexon-Prim- 308p. ISBN 978-9975-139-56-4. pp.164-250*

## ADNOTARE

**Date de identificare:** Țibuleac Ana, **Dezvoltarea planului-cadru de învățământ din perspectiva formării competențelor-cheie, teză de doctor în științe ale educației, Chișinău, 2023.**

**Structura tezei:** introducere, trei capitole, concluzii generale și recomandări, bibliografie din 168 de titluri, 13 anexe, 174 pagini de text de bază (până la Bibliografie), 31 de figuri, 18 tabele, rezultatele obținute sunt publicate în 17 lucrări științifice.

**Cuvinte-cheie:** educație, învățare, plan de învățământ, discipline de învățământ, finalități educaționale, integralizare pedagogică, principii pedagogice, profilul absolventului, trunchi comun de cultură generală, competență-cheie, inter- și transdisciplinaritate, teme cross-curriculare, curriculum, program de formare, manageri școlari.

**Scopul cercetării:** : determinarea fundamentelor teoretice și metodologice de reconceptualizare a planului de învățământ, elaborarea modelului pedagogic și a metodologiei de dezvoltare a acestuia din perspectiva formării competențelor-cheie și a instrumentelor conexe de implementare eficace a acestuia.

**Obiectivele cercetării:** 1) analiza comparativă a planului actual de învățământ din perspectiva tendințelor de inovare a educației și a modelelor de reconfigurare a învățării în contextul societății contemporane; 2) determinarea reperelor teoretice și metodologice pentru conceptualizarea paradigmei de dezvoltare a planului de învățământ din perspectiva competențelor-cheie; 3) elaborarea modelului pedagogic de dezvoltare a planului-cadru de învățământ din perspectiva formării competențelor-cheie și a algoritmului de implementare a acestuia; 4) elaborarea și implementarea programului de formare a managerilor școlari în contextul implementării planului-cadru la nivelul instituției de învățământ din perspectiva formării competențelor-cheie; 5) valorificarea experimentală a programului de formare, a algoritmului și a metodologiei de formare a managerilor școlari în contextul implementării planului-cadru la nivelul instituției de învățământ din perspectiva formării competențelor-cheie ale elevilor.

**Noutatea și originalitatea științifică** a rezultatelor cercetării constă în: determinarea reperelor teoretice și metodologice pentru dezvoltarea planului-cadru de învățământ, elaborarea instrumentelor aferente metodologiei de dezvoltare a planului-cadru de învățământ din perspectiva formării competențelor-cheie și valorificarea acestora în practica de formare a managerilor școlari din învățământul general.

**Rezultatele teoretice și practice care au contribuit la soluționarea problemei științifice rezidă în:** modelul pedagogic de dezvoltare a planului de învățământ din perspectiva pedagogiei competențelor și metodologia de implementare a acestuia în învățământul general.

**Semnificația teoretică a cercetării constă în:** argumentarea necesității dezvoltării actualului plan de învățământ în vederea racordării la finalitățile educației și exigențele sociale, analiza comparativă a acestuia cu alte planuri de învățământ și conceptualizarea fundamentelor teoretico-metodologice ale dezvoltării planului-cadru de învățământ din perspectiva competențelor-cheie.

**Valoarea aplicativă a cercetării:** mecanismul de implementare a modelului pedagogic elaborat; nivelurile de intervenție pedagogică pentru aplicarea noului plan de învățământ; instrumente de validare experimentală a algoritmului de elaborare și modelului planului de învățământ dezvoltat din perspectiva formării competențelor-cheie; programul de formare a managerilor școlari privind implementarea planului de învățământ dezvoltat.

**Implementarea rezultatelor științifice:** Cercetarea experimentală s-a desfășurat în cadrul Universității de Stat din Tiraspol (cu sediul la Chișinău). Rezultatele științifice au fost publicate în 5 articole, categoria B, 7 articole în materialele conferințelor științifice și 4 capitole în monografiile colective: 2 publicate în Republica Moldova și 2 în Polonia, 1 capitol într-o culegere de studii.

## АННОТАЦИЯ

**Идентификационные данные:** Ана Цыбуляк, Разработка учебного плана с точки зрения формирования ключевых компетенций, докторская диссертация в области педагогических наук, Кишинев, 2023.

**Структура диссертации:** введение, три главы, общие выводы и рекомендации, библиография из 168 наименований, 13 приложений, 174 страницы основного текста (до библиографии), 31 рисунков, 18 таблиц, полученные результаты опубликованы в 17 научных работах.

**Ключевые слова:** образование, обучение, учебный план, учебные дисциплины, образовательные цели, педагогическая интеграция, педагогические принципы, профиль выпускника, куррикулум, ключевая компетенция, меж- и трансдисциплинарность, кросс-куррикулумные темы, программа подготовки, директора школ.

**Цель исследования:** определить теоретико-методологические основы реконцептуализации учебного плана, разработать педагогическую модель и методологию ее развития с позиций обучения ключевым компетенциям и соответствующий инструментарий для ее эффективной реализации.

**Научно-исследовательские цели:** 1) сравнительный анализ текущего куррикулума с точки зрения тенденций инноваций в образовании и моделей реконфигурации обучения в контексте современного общества; 2) определение теоретических и методологических ориентиров для концептуализации парадигмы развития куррикулума с точки зрения формирования ключевых компетенций; 3) разработка педагогической модели развития куррикулума с точки зрения формирования ключевых компетенций и алгоритма ее реализации; 4) разработка и внедрение программы обучения директоров школ в контексте реализации плана на уровне школ; 5) экспериментальная апробация программы подготовки, алгоритма и методики подготовки в контексте реализации плана на уровне образовательного учреждения с точки зрения формирования ключевых компетенций учащихся.

**Научная новизна и оригинальность исследовательских результатов:** определении теоретических и методологических ориентиров для разработки учебных планов, разработке методологических инструментов для развития учебных планов с точки зрения ключевых компетенций и их использовании на практике при подготовке директоров школ в среднем образовании.

**Теоретические и практические результаты, способствовавшие решению научной проблемы:** педагогическая модель разработки учебного плана с точки зрения компетенций и методология ее реализации в среднем образовании.

**Теоретическое значение проведенного исследования заключается в следующем:** обосновании необходимости развития текущего учебного плана в соответствии с целями образования и социальными требованиями, сравнительном анализе с другими учебными планами и концептуализации теоретических и методологических основ разработки учебного плана с точки зрения развития ключевых компетенций.

**Практическая ценность исследования:** разработанная модель учебного плана, методология и соответствующие инструменты, созданные для ее развития, программа подготовки директоров школ.

**Реализация научных результатов:** Прикладное исследование проводилось в Государственном Университете в Тирасполе (находящийся в Кишиневе). Научные результаты были опубликованы в 5 статьях категории В, 7 материалах научных конференций и 4 глав в монографиях, 2 опубликованных в Молдове, и 2 - в Польше, 1 глава в сборнике исследований.



## ANNOTATION

**Identification data:** Ana Țibuleac, **Developing the general plan of national curriculum from the perspective of key competences ‘development, doctoral thesis in educational sciences, Chisinau, 2023.**

**Structure of the thesis:** introduction, three chapters, general conclusions and recommendations, bibliography of 168 titles, 13 appendices, 174 pages of basic text (up to the Bibliography), 31 figures, 18 tables, the results obtained are published in 17 scientific papers.

**Keywords:** education, learning, educational plan, school subjects, educational goals, pedagogical integration, pedagogical principles, graduate profile, core curriculum, key competence, inter- and transdisciplinary learning, cross-curricular topics, training program, school managers.

**The purpose of the work:** to determine the theoretical and methodological foundations for reconceptualising the general plan of curriculum, to develop the pedagogical model and its development methodology from the perspective of key competences development and related tools for its effective implementation.

**Research objectives:** 1) comparative analysis of the current curriculum from the perspective of educational innovation trends and learning reconfiguration models in the context of contemporary society; 2) determination of theoretical and methodological benchmarks for conceptualizing the curriculum development paradigm from the perspective of key competences; 3) elaboration of the pedagogical model of curriculum development from the perspective of key competence formation and its implementation algorithm; 4) development and implementation of the training program for school managers in the context of the implementation of the educational plan at the school level from the perspective of the formation of key competences; 5) experimental valorization of the training program, the algorithm and the methodology for the training of school managers in the context of the implementation of the general plan of curriculum at the level of the school from the perspective of the formation of key competences of students.

**Scientific novelty and originality:** the development of the general plan of curriculum for secondary education from the perspective of the formation of key competences and its application methodology at the level of secondary education.

**The scientific novelty and originality of the research results lie in** determining the theoretical and methodological frameworks for developing the general plan of curriculum, developing the associated tools for general plan of curriculum development from the perspective of key competences, and applying these tools in the training of general education school managers.

**The theoretical and practical results contribute to** solving the scientific problem of developing a pedagogical model for general plan of curriculum development from the perspective of key competences formation, and a methodology for implementing it in general education.

**The theoretical significance of the research lies in** justifying the need to develop the current curriculum general plan to align with educational objectives and social requirements, comparing it with other core curriculum, and conceptualizing the theoretical and methodological foundations for developing the general plan of curriculum from the perspective of key competence formation.

**The practical value of the research lies in:** the general plan of curriculum model developed from the perspective of key competences formation, the methodology and associated tools for the development of the training program for managerial staff.

**The research was applied** at the State University of Tiraspol (based in Chisinau). The scientific results were published in 5 articles of category B, 7 conference papers, and 4 chapters in collective monographs: 2 published in Moldova and 2 in Poland, 1 chapter in a collection of studies.

TIBULEAC ANA

DEVELOPING THE GENERAL PLAN OF NATIONAL CURRICULUM FROM THE  
PERSPECTIVE OF KEY COMPETENCES' DEVELOPMENT

531.01 GENERAL THEORY OF EDUCATION

Abstract of the doctoral thesis in education science

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