

COMPETENCE LEARNING TO LEARN IN THE SCHOOL CURRICULUM

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Abstract

Romanian defining competence in curriculum documents highlights the emphasis on structural elements of competence which are required to be developed/ and subsequently evaluated by specific educational approaches. Although some of these authorities have tried to be operationalized in the disciplines of education, either theoretical models of operational or practical competence learning to learn they are not identified.

The competence of learning to learn is an average over the period of schooling due to the way of structuring the curriculum, specific predominant in organizing and designing traditional teaching activities or limits imposed by the specific assessment at primary education.

In this paper we propose to identify and analyze ways of operationalization and implementation of competence "learning to learn" from the educational activities. These are distinct and relate to the drafting of the educational approach on how to translate scientific content and organization, how the organization and management of student learning activity.

Conclusions of this paper highlights the formative value of training/ learning to learn competence development. Competence "learning to learn" will allow mobilizing the necessary resources to adapt to unforeseen situations.

A number of factors can be identified: a) dealing with new situations; b) the level of autonomy and responsibility; c) the terms of a possible takeover of initiative.

Key-words:transversal competences, competence *learning to learn*, learning by doing

THEORETICAL FRAMEWORK

The literature review identified several contemporary approaches to learning, including student-centered educational paradigm; it places the student at the center of the educational process. Many authors (Bocos 2002, Ionescu 2003, Bocos 2013) recognize the increased positive valences of active and interactive learning, in that the student is in the spotlight, active pedagogy adheres to the principle of adapting the school to the student's needs, promotes a pedagogy of diversity, of differentiation, individualization and personalization.

The implementation skills paradigm involved radical changes in curricula,

didactics, evaluation and even in the teaching profession, requiring a holistic approach to education which needs to exceed restrictive traditional analysis. (Perrenoud 1998 in Tudor 2015).

Competence-based learning is built on a system of teaching and learning that develops autonomy and ability to teach students to learn. Students become aware of the learning process, and thereby promoting independent and self-regulated learning and an active engagement in learning and improving personal and professional skills.

The existence of many concepts that define educational aims in Romanian educational theory and practice led to the need to argue the necessity to introduce skills as finalities of the educational activity and to identify patterns of their training in school.

STUDENT CENTERED INSTRUCTIVE – EDUCATIONAL APPROACH

Centering on the student is a fundamental attribute of educational paradigms that structure their steps depending on certain characteristics of the student-process relation and/or of the student/contents relation, as opposed to the traditional teacher-centered paradigms. We derive from the specialized literature the following general characteristics:

- active participation of students in building up their own knowledge;
- students build up knowledge based upon their own knowledge and skills;
- they understand expectations and are encouraged to use progress self-evaluations;
- they work in collaboration;
- they decide on the componence of groups and working methods;
- the students monitor themselves their own learning course, in order to understand how knowledge builds up and to develop learning strategies;
- students have an intrinsic motivation for reaching the goals they have set;
- activity represents a true learning process;
- learning is an active search for the meaning;
- teachers acknowledge the existence of different learning styles;
- teachers help students to surpass difficulties, by formulating questions and orienting them to the right solution.

EDUCATIONAL COMPETENCE - CONCEPTUAL ANALYSIS

The term competence was defined by Rychen and Salganik (2003) as "the ability to successfully satisfy complex requirements in a particular context, by mobilizing psychosocial prerequisites including cognitive and non-cognitive issues and as „internal mental structures, within the meaning of skills, resources

and provisions embedded in person, in interaction with a task or a specific requirement of the real world." (Hoskins, Crick 2008)

The approach on education in terms of centered skills training, envisages an expanded analysis field of training and its essential details are (Pride, Ardelean 2014):

- increased following up the achievement of the aims assumed at the end of the school year or at the end of compulsory education
- granting a new meaning to learning,
- the ratio between skills and curriculum content
- disciplinary and trans-disciplinary dimensions of training
- disciplinary and trans-disciplinary learning activities
- certification of training by multiplying ways of assessing skills.

Competence defining in Romanian curriculum documents highlights the emphasis on structural elements of competence which require to be built/developed and after evaluated by specific educational approaches.

- "(...) a set of knowledge, skills and abilities, organized to solve a task or set of tasks corresponding to social demands" (Biology curriculum);
- "(...) an integrated set/ system of knowledge, abilities, skills and attitudes acquired by students through learning and mobilized in specific contexts of achievement, appropriate to the age and cognitive level of students to solve problems that they may face in real life" (Chemistry curriculum);
- "(...) a qualitative result of a contextualization, appropriate use of all purchases provided by education (knowledge, skills, attitudes) in order to actively solve everyday problems" (Geography curriculum);
- "(...) an integrated set of knowledge, skills, abilities and attitudes acquired by student through learning and acting in specific contexts, adapted to student's age and cognitive level, to solve some problems it may face in real life " (Mathematics/ Physics curriculum);
- "(...) sets of knowledge, skills, attitudes and values formed and developed through learning, which can be mobilized to identify and solve problems specific to a particular area of human activity" (Informatics Curriculum).

Competences can be seen as more than just a combination of knowledge, skills and attitudes: their successful application in practical situations. Schools should facilitate pupils' practical application of knowledge, skills and attitudes by placing them in situations that allow them to operate and interact, producing noticeable results. Competence is not a simple sum of knowledge, skills and attitudes; it is the proven ability to use them in a context achieving results. Contextualised experiences lived by students become important, in that not only the context itself can affect the quality of the competence, but also the subjective experiences of students, determined by context.

A derivation model of key competences in general/ specific skills of a curricular area was drafted by O. Mândruț and A. Ardelean, who built a matrix that synthetically gives the ratio between the eight areas of key-competence - and

the opportunities to fulfill them offered by a particular school subject ("theoretical") at the level of each class (Mândruț, Ardelean 2012).

From this matrix analysis, some conclusions can be drawn that can be suggested as guidelines in designing the curriculum in relation to the eight areas of competence:

- communicative competence has a high degree of satisfaction at all levels of schooling (from class IV to class XII);
- the competence of communication in foreign languages has a high degree of satisfaction at high school;
- mathematical competence and basic competences in science and technology have a degree of satisfaction adequate to classes V or IX;
- digital competence has a high degree of satisfaction, starting with the V class;
- social competence and civic competences have a weak to medium degree of satisfaction over tuition classes;
- the ability to learn how to learn has an average level over the period of schooling;
- initiative and antreprenoriat competences have a small degree of satisfaction throughout the school period;
- sensitization and cultural awareness competences have an average degree over the period of schooling;

In the literature review, various combinations on the training and development of competence are used: learning ability, exercising ability (Voiculescu 2010), acquiring, training and developing competence. The phrase "competence development" is used when the competence is developed at some level when the student has the basic knowledge and skills and he reaches the levels: moderate, good, very good and superior. It is the competence development phase.

Competence is built on the different dimensions of a learning situation. In training and developing skills the emphasis is on personal development, behavior, capabilities and attitudes formation, on knowledge use, different authors identifying different levels or stages of development.

In defining the concept of *teaching competence* it is noted that it should be put in relation with the first *objective social side*, on the one hand, given the nature and complexity of tasks that make up the content of the various spheres of social activity and the different functions and *subjective-psychological plane* which is resultant of knowledge, skills, abilities and temperamental traits characteristic which the individual has, in order to fulfill the social function that he is invested with. (Marcus 1999). Thus, the competence means "the ability to behave in a particular, in a social situation, in order to empirically prove effective, approved operating environment" (Rosencrantz, Biddler 1964, in Marcus 1999).

The same authors state that the variables that emphasize professional competence (and also specific to the profession of educator) are the reasons,

knowledge, feelings and emotions, but also experience, personality features, networking capabilities. It is noted that such a direct relationship between the concept of competence and proficiency, competence with a much wider sphere, referring to the results of the activity, and, in addition to the knowledge and ability to perform a task well, right." (Gherghinescu 1999)

COMPETENCE "LEARNING TO LEARN"

From the analysis of European documents, competence "learning to learn" is approached as a skill to organize and to persevere in learning activity, in the sense of being able to organize your own process, including the achievement of a good personal time management and of the information you work with, in the case of group work, but also on their own.

We identify three structural dimensions of competence of learning to learn: cognitive dimension, metacognitive dimension and emotional, motivational dimension combined with socio-cultural learning environment. Students with well-developed skills to manage their own learning are able to establish appropriate learning goals, to use their knowledge and skills in order to manage their own learning and select appropriate strategies due to the task.

The competence of learning to learn is an integrated set of knowledge, skills, attitudes developed in a particular context in a reflective and strategic manner which includes cognitive, metacognitive, non-cognitive resources to engage actively and interactively in learning situations and efficient handling of the workload. (Roegiers)

Competence "learning to learn" is a transdisciplinary competence, which implies (Mândruț, Ardelean 2012):

- the ability to persevere in learning, to organize own learning, including through effective management of time and information, both individually and in groups;
- awareness of process and own learning needs , identifying available opportunities and the ability to overcome obstacles in order to learn successfully;
- gaining, processing and assimilating new knowledge and skills as well as seeking and making use of guidance;
- engages learners to start on prior knowledge and life experiences, so they can use and apply knowledge and skills in a variety of contexts - at home, at work, in education and training.

Components of learning to learn competence are (Mândruț, Catană, Mândruț 2012):

a. Knowledge:

- skills, knowledge and qualifications required by certain activity or career
- knowing and understanding preferred learning strategies
- knowing and understanding the strengths and weaknesses on skills and personal qualifications

- the ability to seek opportunities for training and career and education
- counselling

b. Skills:

- acquiring basic literacy needed for further learning: reading, writing, numeracy and ICT
- accessing, processing and assimilating new knowledge and skills, to have an effective management of their own learning
- to persevere in learning
- to assign a time for autonomous learning, self-discipline proving

c. Attitudes:

- motivation and confidence to pursue and succeed at learning throughout life
- centered problem solving attitude to support their own learning process and the individual's ability to remove obstacles and manage change
- manifestation of the desire to exploit learning experiences

The competence of learning to learn is a key competence for lifelong learning (European Council and Parliament 2006) which refers to:

- organize their own learning through time management and information
- awareness of the learning process and needs
- identify opportunities and ability to overcome obstacles
- search and use counseling and guidance
- transfer of acquired knowledge and skills
- motivation and confidence are crucial

TEACHING APPROACH OF COMPETENCE "LEARNING TO LEARN" IN THE SCHOOL CURRICULUM

Assessing this competence is based on the assumption that "learning to learn" contains two dimensions: cognitive and affective. In 2008, the Centre for Research on Lifelong Learning (CRELL) published a revised framework for measuring the competence of learning to learn, which is now used (Hoskins, Fredriksson 2008) and it has been added a new dimension, metacognition.

The competence of learning requires the person to know and understand his preferred learning strategies, the strengths and weaknesses of his skills and qualifications, but also to be able to seek available training opportunities and training, advice and/ or assistance.

Learning skills follow some fundamental basic skills such as literacy, numeracy and ICT that are necessary for further learning. Building on these skills, the individual must be able to access, gain, process, assimilated new knowledge and skills. This requires an effective management of his learning, career and work patterns, and in particular the ability to persevere with learning, to concentrate for extended periods and to reflect critically on learning goals. Individuals must be able to devote time to learning through self-discipline and independently, but also must work collaboratively as part of the learning process,

to take advantage of the heterogeneous group and share what they learned. Individuals must be able to organize their own learning, evaluate their own work and be willing to seek advice, information and assistance, if necessary.

A positive attitude includes the motivation and confidence to pursue and succeed at learning activity throughout the life. Problem-solving attitude supports both the learning process, and the individual's ability to overcome obstacles and change. The desire to put into practice prior learning and curiosity to seek opportunities for learning, and to put learning into practice in a variety of contexts of life are essential elements of a positive attitude.

Being a transversal competence, learning to learn competence cannot be strictly attached to only some subjects in the pre-university curriculum. Thus, the learning to learn competence develops either through an approach of its own, based on learning techniques, methods and strategies of study, independent of traditional disciplines or by infusing in disciplinary or interdisciplinary approaches, it helps to develop other key skills and it is the result of them.

The didactic approach of competence "learning to learn" from the school curriculum includes:

- knowledge: knowledge, skills and required qualifications (related to a job or career goals) knowing and understanding its own preferred learning strategies knowing and understanding of the strengths and weaknesses of skills and qualifications, ability to search education and training offers;
- skills: acquiring base literacy for further learning - reading, writing, numeracy and ICT skills, acquire and assimilate new knowledge and skills, have an effective management of their own learning, career and professional activity, persevere in learning, concentrate for extended periods of time, reflect critically on the object and purpose of learning, assign a time for autonomous learning, share purchases learning to organize their own learning, evaluate their own work, search advice, information and support;
- attitudes: motivation and confidence to pursue and succeed in lifelong learning, problem solving to support its own process of learning and the individual's ability to remove obstacles, manifestation of the desire to exploit learning experiences and life experiences, intense exploitation of opportunities for learning and apply procurement in various life situations.

The modalities for operationalization and implementation of competence "learning to learn" at the level of educational activities are distinct and they are related to the drafting of the educational approach, on how to translate and organize scientific content, to the organization and directing the student in learning.

Competence "learning to learn" will allow mobilizing the necessary resources to adapt to unforeseen situations. A number of factors can be identified:

- dealing with new situations;
- the level of autonomy and responsibility;
- the terms of a possible takeover of initiative.

The development of competence learning to learn (ISE 2009) implies increasing actions of student engagement in independent learning, in building the capacity to express personal meanings and create personal learning environments, accountability for planning and organizing their own learning, its conduct and evaluation.

In relation to the drafting of the educational approach, competence can be exploited by:

- using the debate method for clarifying ideas and to get opinions from students;
- capitalizing students' proposals and continuously encourage them;
- presenting the objectives of the activity / lesson that students know the purpose and to realize the effort required to achieve them;
- comparisons between what aims and what actually performs the student to have a true and objective view of the learning action ;
- discussing learning objectives with students;
- identifying the strengths of the activity and their exploitation;
- identifying of obstacles, their analysis, proposal and application of methods to overcome them;
- encouraging students to overcome any obstacle in learning, stimulating students' learning effort, his progress in learning;

In relation to how the scientific content is transposed and organized, the competence can be exploited by:

- capitalizing previous content elements and identifying correlations with new content elements to foster continuity of knowledge assimilation;
- identifying and deepening essential content elements and transfer it in complex knowledge systems;
- stimulating the complex processes of thought, the focus will be on understanding, application, synthesis, argumentation of knowledge and its application in various fields of activity.

In relation to the organization and directing student learning activity, the competence can be capitalized by:

- presenting some learning methods and techniques that stimulates autonomy in learning;
- establishing, in agreement with the teacher, work objectives for each student;
- arguing the teacher's expectations from the student that the student know and relate to them;
- using various evaluation techniques to stimulate students in their own and of the others skills objective knowledge.

Developing the learning to learn competence is highlighted in the curricula of educational disciplines:

- by specific competence in Mathematics: mathematical modeling of various problematic contexts, by integrating knowledge from different fields;

- in Science by specific competence: transfer and integration of specific knowledge and work methods of biology in new contexts;
- at History through specific skills: using appropriate principles and methods to access historic sources; using the resources that support lifelong learning;
- at Physical Education by specific competence: application of the specific rules system to the organization and of practicing physical education and sport and adoption of appropriate behavior in interpersonal relations and group, using specific techniques for self-assessment of their capacities and analyze their value, developing self programs to improve their physical development and driving ability;

Entering preparatory class involves the reorganization of competence concept by adapting to the students achievable levels and the selection of means and methods in accordance with the pursued goals. Ensuring the continuum between the three cycles and then connect to the following classes of VI class is a methodological requirement that guide all teaching -learning - evaluation strategies.

Evaluation indicators will be focused on students' capabilities: the way of involvement and building the interpretations and arguments, how the knowledge is transferred to other contexts, the appreciation of the group colleagues, effects on the cognitive, individual development, the level of metacognition etc. (Tudor 2016)

Through various educational activities, students realize the process and own learning needs; identify available opportunities and develop their ability to overcome obstacles; use discussion/ debate for clarification and to get opinions.

To develop these skills until the end of secondary education, the graduates should:

- demonstrate through action, readiness to learn throughout life;
- determine strategies and learning methods suitable for their own development;
- improving own learning style;
- determining priorities and learning objectives;
- demonstrate initiative, risk assessment and control learning obstacles;
- efficient use of learning outcomes and previous experience;
- use the suitable resources for the full development of individual potential, and the potential of others, from a holistic perspective;
- achieve an appropriate balance of personality intellectual, emotional and motivational components , reinforcing self-confidence and self-esteem, positive motivation and ability to properly use their capabilities, respect and appreciation of others capabilities;
- correctly identify their strengths and weaknesses, capitalizing strengths to surpass itself;
- elect and decide about health, diet, physical training and exercises;
- use and manage information correctly, critically, creatively and responsibly;

- correlate theoretical knowledge with practical activities, proving a positive attitude towards learning; harness the acquired skills in subsequent studies, at work, in public and private life.

CONCLUSION

In recent years nuanced debates were carried on competences as educational finalities and the ways in which they can be converted into relevant training actions (Rey 1996, Perrenoud 1998, Badea 2010, 2011, Manolescu 2011, Dulamă 2011)

Competence-based education involves a series of new dimensions such as: strengthening the overlooking of the way the assumed finalities are being done at the end of the school year or at the end of compulsory education, granting a new meaning to learning, certification of training results etc. for each of them, they are looking for models to operationalize skills and their methodological approach, adapted to current educational dimensions.

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