Situation and Structural Framework of Competence: Action Logic, Curriculum Logic, Logic of Education

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Abstract

This article analyzes the issue of "competences" from different perspectives: conceptual clarifications, situational and structural approaches, methodological and action. Emphasis establish the connections between different categories and types of competencies, but also on identifying mechanisms for designing competences specific to school subjects. The innovative approach of the proposed approaches is related to the three-dimensional conceptualization of competence (action logic, curricular logic, learning logic on the one hand, and two-dimensional logic of the priorities of the types of activities in relation to the personality development directions and/ personality development with types of activities within a domain of knowledge). Situations are the "source and criterion" of skills. A competence is the result of interaction between person-action-situation. The approaching of competence from the situational perspective also includes curricular logic (competence as the finality and form of manifestation) and is a curricular tool designed to provide the learning process (learning logic). At the same time, for all fields of activity a competence is the condition and indicator of performance and efficiency. Competences are therefore a transferable and multifunctional package of knowledge, skills, abilities, values and attitudes that allow the person to achieve his / her fulfillment and professional development, social inclusion and professional involving in the field.

Keywords: *competence, teleological, key skills, transversal skills, specific skills, unit skills, activities, preprocurement, knowledge, skills, attitudes, taxonomy of skills;*

The competence issue remains the most current and controversial topic today.

In fact, all debates in this regard focus on the dimension of the transition from knowledge to action, from "know" to "know how to do", "know how to be".

Approaches focus on skills have origins in the professional and linguistic fields. In the first case - in response to the rational organization of work and ensuring its high profitability.

It is necessary to mention the existence of several disputable issues on the "competences" dimension: defining competence; structure of competence; operationalization of competence; gradual manifestation of competence; projection skills; training and assessment skills etc.

Competence: conceptual clarifications

Defining the concept of competence is a difficult task, and in the view of some authors it is impossible, because it is a "vague concept". As a rule, the definitions of competency concept contain varied dimensions / substances and may have different theoretical positions depending on the context, the field of knowledge, the point of view of the competence conceiver.

Therefore, in this way the skills are transferable and multifunctional package of knowledge, skills, abilities, values and attitudes that enable the individual way to achieve the fulfillment and professional development, social inclusion and employment in the field.

This definition is coherent with the basic characteristics of competence formulated by J. Henry and V. Cormier [7]:

- is a complex - integrated knowledge, strategies, abilities, attitudes into a complex process of manifestations;
- is relative - although it is a finality of education, competence never gets a final formula, and it develops continuously throughout life;
- is potential - unlike a performance that competence can be designed and evaluated, the possibility of mobilizing it generating different performances in the future in different contexts of independent learning;

C. Delory proposed the following definition: "Competence is an integrated set of skills, habits and attitudes that allow the subject, in the face of a category of situations, to adapt, to solve problems and

make projects. " According to Guy le Boterf , "competence does not consist of resources (knowledge, capacities ...) to mobilize, but in the mobilization of these resources itself. Competence is to know how to mobilize yourself (savoir-mobiliser). "

In Gillet's view, a competence is "a system of conceptual and procedural knowledge, organized into operator schemes, which allow, within a family of situations, to identify a task-problem and solve it by effective action".

Competence = (capacities × content) × situations = specific objective × situations. Learning is "at the same time a divergent process, at the level of capacities, and convergent at the level of competencies" [6, p.71].

Linda Allal proposed a network of components (dimensions) that interfere in a competence: cognitive, affective, social and sensory-motor [10].

Components of a Competence

Cognitive Components:
• Knowledge
   - Statements - rules, facts, laws, principles (knowledge);
   - Procedures (good sense - savoir-faire);
   - Conditional (contextual), which allows the subject to choose at a certain moment a certain strategy, a certain approach, to engage in a certain action (M.A. Broyon, 2001). This knowledge is responsible for the transfer of learning (Tardif, 1992).
• Meta-knowledge and Metacognitive and regulation.

Affective Components: attitudes, motivations ... **Social Components:** interactions, concerts ...
Sensor-motor components: Gestural Coordination ...

Table 1. Dimensions of competence

Situational and structural approach of competence

The situational approach to the concept of competence focuses on the triple logic; the action in the situation, the curricular logic and the logic of learning [13].
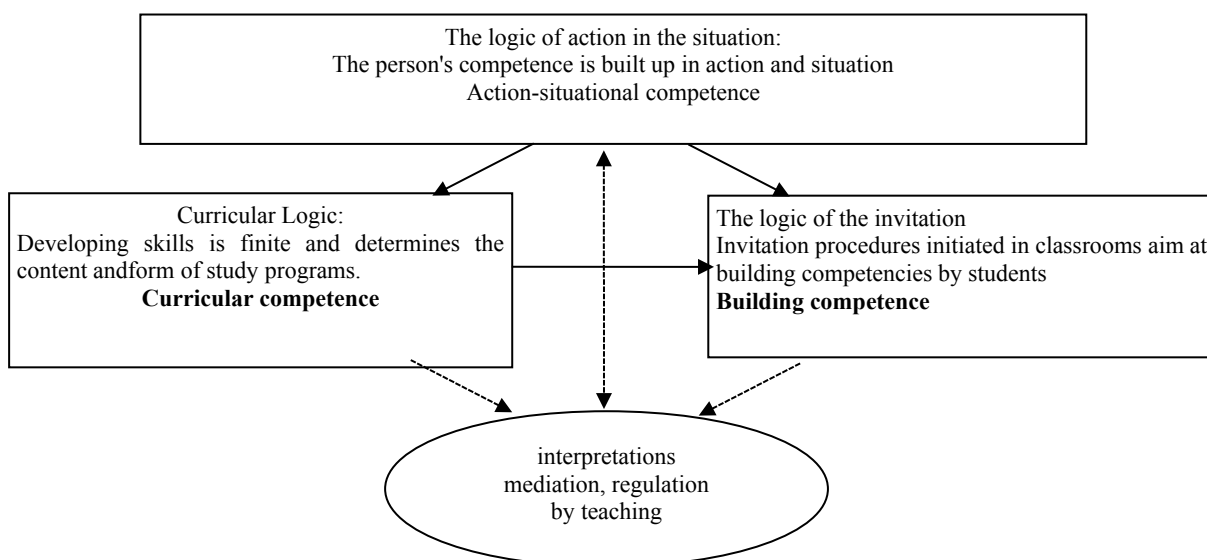

Figure 1. The concept of competence in a triple logic

In other words, this process is organized around four frameworks: a situational framework, a framework of actions, a resource framework, and a framework for evaluation [13].
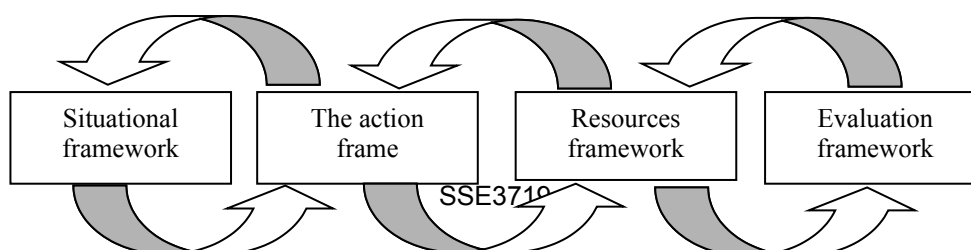
Figure 2. Interdependence between the four frameworks: situational, action, resource, evaluation.

This approach in the situation must lead to the formation of a competent person. The competent action is based on several elements: understanding the situation; perceiving the goals of their own actions; has as effect of treating the situation; the possibility of using a plurality of resources, to adapt them and to build new resources etc. [8].

A similar approach to the competence structure is taken up in PISA documents.

Figure .3. Dynamics Competence Structure (PISA).

The advantages of this approach are: 1. Action - is the key element of competence. 2. Achieving the knowledge, skills, attitudes in dynamics and phases. 3. Correlation of global competences with disciplinary ones. 4. Focus on local, global and intercultural issues.
At the same time, it is important to establish the "place" of competence units (pre-requisites) in the competence structure (dynamics of competence formation).
The pre-acquisition of specific competences on university disciplines are defining in the disciplinary curriculum. It is worth to mention that there is a wide variety of connections / interconnections between different categories and types of competencies that provide a systemic approach to them.

Methodological aspects of the design of competences specific to university subjects

Designing the competences specific to the university discipline is a complex, difficult, creative and responsible procedure. Concepts of the competence system (or curriculum designers) will be able to use the following algorithm of actions and steps:
A. For general competences specific to university subject: identifying one or another skill taxonomy as a tool for designing them; identify the structure of competences: verb, in active form, domain / subject, level / modality / norm, context / outcome; establishing the formative valences of the given discipline, the action / typology of specific actions, for example: "Romanian Language as a Foreign Language" discipline has the vocabulary of listening, reading, writing, communication, and discipline "Anatomy" forming the perception of medical terms, skills training.
       This concept can be presented graphically through the matrix, for example: based on the discipline "Romanian Language as a Foreign Language".

	Hearing	Reading	Speech	Writing
Knowledgeandunderstanding	↓	↓	↓	↓
	→	→	→	→
Applicationandoperation	↓	↓	↓	↓

		→		→		→		→
Integrationand transfer	→	↓	→	↓	→	↓	→	↓

Table 4.Taxonomic framework for the design of competences specific to the academic discipline
(variant 1)

	Knowledge/understanding	Application/operation	Integration/transfer
Hearing	→ ↓	→ ↓	→ ↓
Reading	→ ↓	→ ↓	→ ↓
Writing	→ ↓	→ ↓	→ ↓
Speech	→ ↓	→ ↓	→ ↓

Table 5 The taxonomic framework of designing the competences specific to the academic discipline
(variant 2)

It should be noted that both approaches lead to the same goal - the achievement of an action / activity, but in different ways.

B. For competencies / units of competence specific to the discipline
As general competences for study subjects, designing the units of competence is a complex and difficult procedure. It should be noted that competence units could also be seen as ways of contributing to the (direct or indirect) formation of transversal competences. Their correct formulation must be consistent with the competencies and specific units of competence to the discipline given. Namely, by achieving operational objectives within a lesson, students assimilate initial pre-acquisition, constitutive competencies.
Some results of assessing the interconnection between different categories of competences in curricula at university subjects
The curriculum of the Romanian Language includes in its structure the following specific competencies:
1. *Competence* to use basic knowledge from the field of anatomy (medical terminology) in various communication situations regarding the development of the ability to receive the written and spoken word in Romanian
2. *Competence* and ability to form knowledge and skills designed in terms of functional insertion in the professional field;
3. *Competence* to apply linguistic means and a specialized lexicon.
4. *The ability* to express coherently in a simple manner to describe experiences, events, goals;
        In this context, all specific competences derive from basic competencies in medical (medical), and each specific competence derives, in part, from other transversal / key competencies. Thus, the first specific competence also derives from communication skills in Romanian as a foreign language for international students, the second specific competence - from the competences to learn to learn, the third - the communication skills in Romanian as a foreign language and tangential from digital competences, fourth - from action-strategic competences and the fifth - from action-strategic competences and entrepreneurial skills (Figure 5).
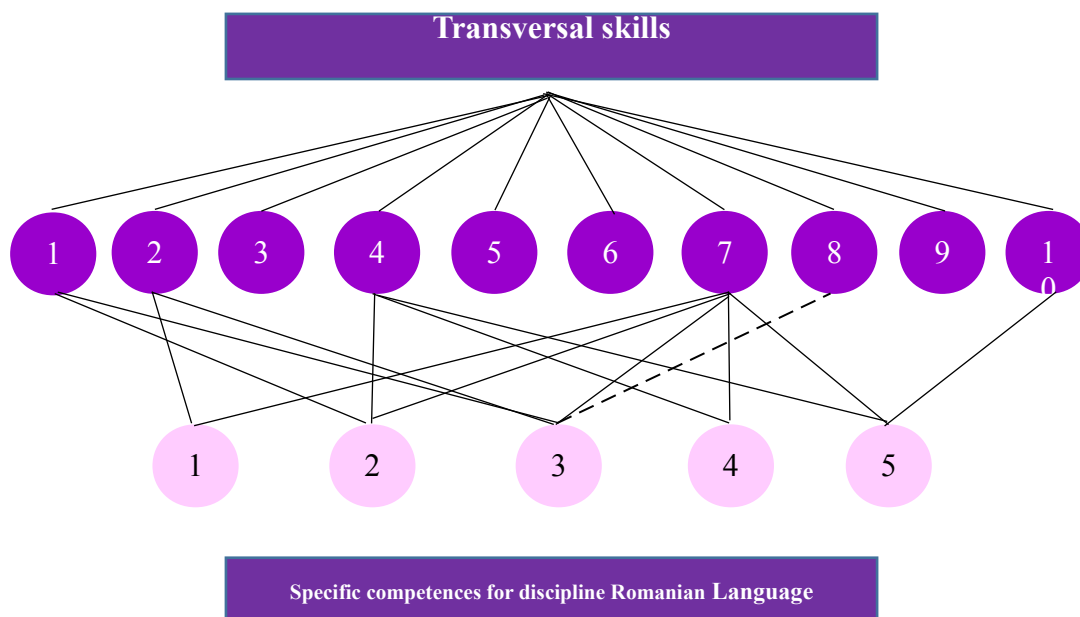
Figure. 5. The correlation scheme "Cross-cutting skills - specific competences" at the Romanian Language discipline

This correlation reflects a certain gradual correlation between transversal / key competences and specific competencies, which highlights the share of Romanian language contribution in the formation of certain transversal / key competences, namely:

• Basic skills in Anatomy, Histology. **3** points high
• Skills to learn / learn to learn. **2** points, average grade
• Communication skills in Romanian / State language **2** points, average grade
• Action-strategic competencies. **2** points, average grade
• Entrepreneurial skills. **1** point, low grade

The competences specific to the Romanian language as a foreign language are taxonomically designed as follows:

- Specific competence no.1 → category of competences - knowledge and understanding.
- Specific competence no.3 → competence category - application and operation.
- Specific competences no. 2, 4 and 5 → competency category - integration and transfer.

No. crt.	Taxonomic level of competence units (expressed by verb)	Number of records per module (eg, "Digestive System" module)	Number of records on all modules (7 modules)	Correlation with specific competencies (No. of specific competence)
1.	Defining		1	1
2.	Identification		6	1
3.	Determination		3	1
4.	Description		1	1
5.	Recognition		3	1, 2
6.	Comparation	1	1	3
7.	Interpretation	1	2	1
8.	Differentiation		1	1
9.	Application		1	3
10.	Establishing relationships		1	1, 2
11.	Analysis	1	4	1, 2
12.	Argumentation	1	5	1,5
13.	Proposal		1	5

Table 6 Correlation: Specific Competences - Competence Units in Romanian Language

Correlation of assessment the analysis data: Specific competencies - competence units demonstrate that there is a correlation between specific competences and competence units.

Conclusions

Focusing on competencies is asserting by the need to develop complex student skills that allow them to adapt better the social and cultural changing of environments. Competence means to act by mobilizing and effectively using a set of resources that the individual has at one time and in a given context. Addressing the concept of competence in this article does not claim to be exhaustive. At the same time, it attempted to re-conceptualize and argue a situational approach to competences from the perspective of the logic of action in concrete situations from the perspective of curricular logic and from the perspective of learning logic. In this context, a taxonomic design of the competency system was proposed, focusing on the degree of interconnection between different categories and types of competences, but also on the progressive framework for their development.

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