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How do the Romanian Students Learn? Metacognition and Experiential Learning in the Romanian School Curricula

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Abstract: *Fundamental for the development of the lifelong learning skills, the metacognitive processes are connected to the experiential model of learning. In an age where information is a click away, the development of higher-order thinking skills becomes essential for a relevant content for learning. The first step should be the development of the metacognitive processes and the critical thinking skills, not only as prerequisites for the school success, in an era where the documentation involves selections and hierarchies, but also as a foundation for social insertion. The school syllabuses should target the development of metacognitive strategies, in the spirit of student-centred teaching-learning activity. Our paper traces the way they deal with metacognition, observing the precariousness of the specific skills that could develop it, in order to assess the knowledge level of the learning strategies and their use in the disciplines from the "Language and communication" and "Man and society" curricular areas, as the students and even the teachers that are trained using these syllabuses are experiencing difficulties when these skills are necessary. In addition, after graduation, the obstacles in the development of metacognitive processes in students can be more difficult to overcome, the purpose of the present research being precisely to reveal them.*

Keywords: *metacognition, learning, experience, competence, curriculum.*

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Introduction

The issues of academic learning, even if intensively researched and in a multifactorial approach over time, remain challenging especially because of the new technology. All its beneficial effects, particularly in the access to information and communication, are constantly undermined by reluctance and even fears. In the recent years, among teachers and specialists in educational sciences, the concern for an adapted approach to learning experiences in relation to the current generations of students is emerging more and more clearly as the technology is their *modus vivendi*. The main concern is given by the students' easy reach to the information, as this is often classified, organized and processed according to the school requirements or even individual personal development needs. The effects could be the difficulties and blockages in the development of higher-order thinking skills, as through the transition from printed literature to search engines and more recently to interactions with AI applications, our neural circuits have been reconfigured, our memory has been redesigned, our mind has been scattered. The reading moved from deep, singular, profound reading to a dynamic reading, which scans short pieces, in permanent search, generating a mosaic type of knowledge (Paraschiv & Tănase, 2016). Obviously, an open world, a huge space full of answers and solutions means evolution and development, and that can be seen at the social level also. At an individual level though, the pupils, the students and the teachers need efficient methods, techniques and approaches in the teaching-learning activity, they need contexts, readings and activities that trigger doubtful states, cognitive tensions, questions and enlightening discoveries, implicitly with the help of technology. If an AI assistant can promptly answer the question "What?", the role of the teacher and the reading must focus on "Why?" and "How?" (Wu, 2024). In fact, the answers to these last questions lead to the need of training the higher-order thinking skills that ultimately concur decisively to the social adaptation and integration in the very complex, evolved and full of challenges world that we know today.

Therefore, some questions arise: to what extend are prepared the future teachers to educate the students' metacognition? Given the impact of technology on their own cognitive abilities, how well do they know, understand and how effectively can they apply a methodological tool to facilitate the development of the students' higher cognitive

abilities? To what extent are they trained in metacognition at the beginning of their academic learning (initial training), so that they actively and consciously assimilate the didactic strategies designed to activate the processes of metacognition? How can they develop and refine the metacognition through experiential learning, so that they, in turn, become facilitators of the learning transformative experiences?

In order to find answers to these questions the first step to be taken is the study of the high school curricula, so that one can find the elements that lead to higher order operations and to the metacognition, experiential and lifelong learning. The study of other countries' curricula shows that there are significant differences between the approaches of metacognition and lifelong learning in Great Britain, France, Spain and Italy. Our research was restricted to the mother tongue study, English, French, Spanish and Italian, as we couldn't introduce other subjects, because of the differences between these countries' curricula, as well as the differences between their curricula and the Romanian's. However, in the "Language and Literature" curricula, the competencies involving metacognition have different features. For example, in Great Britain's English "Language and Literature" syllabus, the metacognition skills are considered from the beginning, in the "Introduction" chapter, as the most important learning foundation: "English is both a subject in its own right and the medium for teaching; for pupils, understanding the language provides access to the whole curriculum. Fluency in the English language is an essential foundation for success in all subjects" (Department for Education, *Statutory guidance. National curriculum in England: secondary curriculum*, 2014). Therefore, the English syllabus stipulates that the students "should learn to justify ideas with reasons" and "ask questions to check understanding". Concerning the metacognition, the program aims to the students „use discussion in order to learn", and it stipulates that „they should be able to elaborate and explain clearly their understanding and ideas" by re-reading books encountered earlier to increase familiarity with them and provide a basis for making comparisons", "knowing the purpose, audience for and context of the writing and drawing on this knowledge to support comprehension", "checking their understanding to make sure that what they have read makes sense". Although the French language syllabus, Ministère de l'Éducation nationale (n.d), "Les programmes du lycée général et technologique" enhances the literary and identity themes, it also envisages the metacognition. It says that the students "should

deepen and exercise the reasoning and the critical thinking", they „should be able to develop their personal reflection and a convincing argumentation, either in oral or written language, but also to analyse the argumentative strategies of read or heard speeches" („aprofondir et exercer le jugement et l'esprit critique des élèves, les rendre capables de développer une réflexion personnelle et une argumentation convaincante, à l'écrit comme à l'oral, mais aussi d'analyser les stratégies argumentatives des discours lus ou entendus"). An important aim of the French curriculum is that the students „adopt an autonomous and responsible attitude, particularly concerning searching the information and the documentation, in the cooperation with the librarian teacher" ("les amener à adopter une attitude autonome et responsable, notamment en matière de recherche d'information et de documentation, en coopération avec le professeur documentaliste"). In the Spanish curriculum, "Lengua Castellana y Literatura" the concern for the metacognition learning is more obvious in the envisaged competencies, the assessment criteria as well as in the predicted basic knowledge (Educagob Portal del Sistema Educativo Espanol (n.d.): the students are supposed to "understand and interpret the oral and multimodal texts, identifying the general meaning and its most relevant information, its point of view and the communication intention of the transmitter, to assess its reliability, its form and its content, for knowledge building, opinion forming and expanding the possibilities of enjoyment and leisure"("2. Comprender e interpretar textos orales y multimodales, recogiendo el sentido general y la información más relevante, identificando el punto de vista y la intención del emisor y valorando su fiabilidad, su forma y su contenido, para construir conocimiento, para formarse opinión y para ensanchar las posibilidades de disfrute y ocio"). In the assessment criteria one can understand better the metacognitive intension of the syllabus. It is stipulated there that the students should „assess the form and the content of the complex oral and multimodal texts, evaluating their quality, their reliability and the suitability of the used channel, as well as the effectiveness of the used communication procedures" ("2.2. Valorar la forma y el contenido de textos orales y multimodales de cierta complejidad, evaluando su calidad, su fiabilidad y la idoneidad del canal utilizado, así como la eficacia de los procedimientos comunicativos empleados."). Another competence is expected to enhance the critical thinking beyond the literary text study. It is assumed that the students should "understand, interpret and assess

the written texts, using the critical thinking tools and different reading approaches, recognizing the global meaning and the main and secondary ideas, identifying the transmitter's intention, reflecting on the content and the form of the text, evaluating its quality and its reliability to answer to different communicative necessities and interests in order to build knowledge" („Comprender, interpretar y valorar textos escritos, con sentido crítico y diferentes propósitos de lectura, reconociendo el sentido global y las ideas principales y secundarias, identificando la intención del emisor, reflexionando sobre el contenido y la forma y evaluando su calidad y fiabilidad, para dar respuesta a necesidades e intereses comunicativos diversos y para construir conocimiento"). The most important assessment criterion is "to evaluate critically the content and the form of complex texts, their quality and reliability, as well as the efficiency of the linguistic procedures they used" (4.2. "Valorar críticamente el contenido y la forma de textos de cierta complejidad evaluando su calidad y fiabilidad, así como la eficacia de los procedimientos lingüísticos empleados"). These competencies and assessment criteria are completed with basic knowledge structures, among which metacognitive elements can be found: "reflection on meaning changing (of the words), on the semantic relationships between the words, their denotative and connotative values depending on the context and the communicative purpose"("Reflexión sobre los cambios en su significado, las relaciones semánticas entre palabras y sus valores denotativos y connotativos en función del contexto y el propósito comunicativo."). Although it does not focus on the metacognition, the Italian language and literature syllabus (Ministero dell'istruzione, dell'università e della ricerca, 2010), also stretches its importance in the introduction. It says: "The Italian language represents a national cultural asset, an essential element of identity of each student and the preliminary means of access to knowledge: the linguistic dimension can be found indeed at the crossroads between the communicative, logical argumentative and cultural skills expressed by the educational, cultural and professional profile general high school courses"("'La lingua italiana rappresenta un bene culturale nazionale, un elemento essenziale dell'identità di ogni studente e il preliminare mezzo di accesso alla conoscenza: la dimensione linguistica si trova infatti al crocevia fra la competenze comunicative, logico argumentative e culturali declinate dal Profilo educativo, culturale e professionale comunea tutti i percorsi liceali").

As it was written above, the metacognition is an important concern in the European school curriculum, even if one reads few syllabuses, as the British, French, Spanish and Italian ones. The main features identified in these programs are the statement that the language knowledge is the foundation for the learning skills developing, therefore the reasoning, the critical thinking, the clarifying questions asking, the personal reflection, discussions and text interpreting are supposed to be enhanced. Notwithstanding, the mentioned school curricula do not deepen the metacognition strategy and knowledge, as it should be according to the students' needs. The Romanian school curricula also aim at the metacognitive skills developing, but what is different from the European programs is the experiential approach of the problem. In this regard, our study underlines the importance of appropriate teaching of the metacognitive strategies and thinking tools. Whether in Great Britain, Spain, France, Italy, Romania or somewhere else, the contemporary students' features changed, calling for new learning strategies, according to their needs. As the new technologies and the digitization have an enormous impact on their lives, one of the consequences is the restricting of the direct experience in learning, because the digital world offers the whole information they want just a click away. On an international scale, this very rich virtual environment restrains the profound learning as we know it, consequently the school has to renew some teaching models, integrating this new technology, such that their impact favour lifelong learning.

This paper focuses on the "Language and communication", as well as on „Man and society" curricular area programs study, where the main thinking tools lay, trying to connect the metacognitive strategies to the experiential learning tools as they can be find in the syllabuses, in order to understand how to process them for lifelong learning goal achieving.

Literature review

The experiential learning theory is focused on the understanding process in learning, emphasising the active involving of the student in his own development, as John Dewey (1910), Carl Rogers (1969) and David Kolb (1984) pointed out. In the experiential model, created by David Kolb, the sources of the experiential learning are described - the concrete experience, the abstract thinking – as well as the procedures of the transforming experience – the reflective observation and the active

experimentation, in other words, the sources, like feeling and thinking, are correlated to the procedures, like watching and doing. Kolb also describes the four stages of the experiential learning: experiencing, reflecting on the experience, abstract concepts building as a consequence of the lived experience or thinking, and the formulation of the hypotheses and experimenting the abstract concepts in new situations or acting. Criticized for lacking theoretical and empirical foundation, or for being eclectic, Kolb's work remains the most influential model in experiential learning. In this regard some researchers debated on the concrete experience concept, some of them believing that reading a book is a part of experiential learning and others do not (Blenkinsop, et al., 2016), others focused on the importance of rich contextual learning environments (Karoff et al., 2017), social interactions (Pipitone & Raghavan, 2017), the role of the teacher in the process (Isaak et al., 2018), on the higher order operations involved in the problem solving experience (Collins et al., 2016), on fostering the critical thinking tools by experiential learning (James & Williams, 2017), the increased responsibility of the learners in the experiential learning process (Fifolt et al., 2017), the learners' communication (Gibbons et al., 2018). The intense debates on the model, its revisions not only show its limits, but also its impact on learning. The model involves strong metacognition strategies, enhanced by the concrete experiences, by reflecting on them, or by reviewing the process.

The metacognition, defined as thinking about thinking (Flavell,1976) was also a subject in intense debates, the researchers underlined its components (Cross & Paris, 1988; Schraw et al., 2006), its types, the cognition management (Kuhn & Dean, 2004; Schraw et al., 2006), also pointing out the late acquisition of cognition knowledge by the students. In addition, several studies also debated on the mechanisms of metacognition, such as planning, monitoring, regulating and evaluating the process (Cross & Paris, 1988; Schraw et al., 2006; Whitebread et al., 2009), on metamemory, critical thinking and motivation (Schneider & Lockl, 2002), on specific metacognitive skills like analysing arguments (Halpern, 1988), making inferences (Willingham, 2008), evaluating (Case, 2005), problem solving (Willingham, 2007). The researchers pointed out the role of language ability (Schneider & Lockl, 2002), of the executive functioning (Carlson & Moses, 2001), the importance of understanding (Kuhn & Dean, 2004), of the declarative metamemory and so on, in the development of

metacognition skills. The studies lead to a deep understanding of the processes, their components and their mechanisms, in order to find out if the metacognition is teachable. The evidences, offered by Cross & Paris (1988), Dignath et al. (2008), Kramarski & Mevarech (2003), showed that if used in the classroom, the metacognitive skills improve, for example, in Cross and Paris's study on reading comprehension skills, in Hennessey's research (1999), for science concepts using, or in Kramarski and Mevarech's approach on mathematical reasoning (2003). Overall the studies highlight the importance of teaching the metacognition skills in school, even to the young children, as a condition for cognitive development. Connecting the experiential model of learning to metacognitive strategies may lead to a better education in the super-technological contemporary age. The present paper aims to study the experiential learning and metacognitive skills in the high school curricula, as a foundation for lifelong learning.

The theoretical foundation of the research

The social dynamics and the complexity of the world generate a paradox: although the access to the information is easy and fast, its selection and processing may be an arduous process under the conditions of the sources' diversity, perspectives' multitude, analysis's and interpretations' variety which could lead to difficulties in the social adaptation. One's own experiences (even the school learning ones) could be perceived as questionable, academically formed epistemic cores can undergo alterations in contact with the force of the online environment informational flows almost impossible to control. Under these conditions the training of the critical thinking skills is essential, because they allow the assessment of information, the search for connections, predictions, alternative explanations, analyses and comparisons, solutions finding by problem solving. From J. Dewey (1910) to the present days, the studies, the explanatory models and the nuances of the critical thinking concepts have kept their reflexivity core, the activation and the awareness of the cognition's mechanisms. Recent findings (Akcaoglu et al., 2023) have demonstrated the connection between the metacognition and the critical thinking: the metacognitive awareness predicts the critical thinking in a significant way. Thus it is not a coincidence that both the critical thinking and the metacognition are intensely researched as higher-order cognitive skills building, in order to identify some flexible and effective ways of stimulating them in the formal education. To the

primary and general meaning of metacognition (as J.H. Flavell introduced it in the 70s of the former century, as knowledge about knowledge) multiple variations and interpretations have been added (Lai, 2011). The metacognitive skills mean more than the metacognitive knowledge, because the skills define the procedural aspect of metacognition referring to the activities carried out in order to control and survey one's own thinking (Sălăvăstru, 2004). Therefore, the students should not only become aware of how they think, but also go through a series of stages in which the thinking produces effects through planning, control and regulation (Sălăvăstru, 2004). The previous experience has an important role in this process, as well as in the metacognitive skills' training. Kolb & Kolb (2009) highlights the link between the metacognition and the experiential learning through a series of strategies that help the individuals to improve their learning effectiveness. Richmond et al. (2017) demonstrates that the experiential learning can be more effective than the direct instruction in the metacognitive skills development, because the students process more deeply, the recognition and the recall are faster, richer in information if previous experiences are used in the didactic process.

The ways that teachers organize and facilitate the learning activities in the didactic practice can shape this process. The first step could be to identify the skills, information and learning activities to be leveraged by triggering the metacognition and directing this process until the student gains autonomy in the school curriculum. Of course, a metacognitive component (explicit or implicit) in the curriculum targeted competencies is not sufficient, but it is necessary. The content delivery, possible in a variety of learning activities, is more likely to be oriented towards metacognition if there is a curricular background, even if it depends on the teacher. The teacher is the one that can set bounds between the cognition and metacognition, or ideally is able to ensure the transition from the cognition to metacognition through a series of strategies that encourage the experiential learning. A frequently addressed direction in the experiential development of metacognitive skills is the problem solving, as this involves the reorganization of previous resolution stages, the awareness of solutions and decisions that lead to the expected results. Yuksel & Yuksel (2012), for example, assessed the awareness level of some students regarding the reading strategies and found out that the problem solving strategies were the most used. A study on the link between metacognitive awareness during

collaborative tasks and performance was conducted in the context of computer-assisted problem solving (Cini et al., 2023). It revealed the importance of three factors that interact with the metacognition: the self, the others and the learning environment. The transfer of the students' metacognitive skills to new contexts was found to be easier if the teachers are aware of students' metacognitive functionality and use teaching strategies that actuate all these types of interactions. However, the teaching profession requires complex metacognitive qualities; Akcaoglu et al. (2023) recommends including courses on metacognitive awareness, self-regulation, and critical thinking in the teachers' education programs, based on the finding that the self-regulation significantly predicts metacognitive awareness and critical thinking, and metacognitive awareness significantly predicts critical thinking. All of these contribute significantly to the teacher training so they can develop on their turn the necessary 21th century learning competencies and skills (Luna Scott, 2015): the critical thinking, the problem solving, the collaboration, the creativity and the informational literacy.

Methodology

Our fundamental – theoretical type research was carried out through the document analysis method, the case of Romanian high school curricular documents (school syllabuses).

We searched for the answer to the following question: What do the high school curricula suggest about the metacognition of university students, through specific competencies? It is not a variable operating research, as the analysis is supposed to ascertain and explain the data already existing in the system, the competencies that enhance the metacognition and the experiential learning.

Given the diversity of the profiles and specializations, as well as the high school curricula subjects, in the first stage of our research we selected the core curriculum school subjects that provide the necessary skills for all the graduates. The selected subjects come from two curricular areas in the humanities field, and are supposed to be studied by all the students.

In the second stage we established the connections between this set of competencies and the lifelong learning European key competencies. As our research involves metacognitive skills, our analysis has focused on the personal, social and learning key competencies.

In the third stage, we analysed the "Language and communication" and "Man and society" school syllabuses, taking into account their major impact on personal development (through the communication competencies) and social evolution (through the social and learning competencies). We searched on the following school programs: "Romanian Language and Literature" and Modern languages from the "Language and communication" curricular area and "Philosophy", "Logics, Reasoning and Communication", "Geography" and "History" from the "Man and society" curricular area.

Because the metacognition has a beneficial influence on the learning skills, we searched for specific competencies that have metacognitive components in these school syllabuses. We also operated in a deductive mode in order to identify the experiential learning background as this kind of learning is able to support the metacognitive processes.

Our research marks a two entries longitudinal axis: in the high school learning system and in the university learning system, to highlight the students' metacognitive background.

Results

Starting form the premise that the students' metacognitive skills development requires teachers with a deeply functional metacognition, we set out to investigate the curricular sources of the metacognition and to identify, in the Romanian high school curriculum, the specific competencies in the humanities fields (language and communication, man and society) that contain metacognitive components.

This study contributes to a better understanding of the learning experiences that the future students went through during high school, as well as to a better organization of the experiential academic learning in order to develop the metacognition both at the informational and procedural levels. Our study analysed the metacognitive skills and the experiential learning both in the "Language and communication" and the "Man and society" curricular area.

The Romanian Language and communication curricula analysis highlights the two components of metacognition: the knowledge of the learning strategies and their use. Within the mentioned curricular area, the analysis of the "Romanian Language and Literature" programs, of the "English Language" (Modern Language 1 and 2) and "French Language" (Modern Language 1 and 2) programs (Ministry of Education, Research and Innovation, 2009c, 2009d), can show the features of the

metacognitive skills that the students possess at the start of their academic activity. Within the key competences provided in the European Union documents, the first one is that of using the mother tongue, a good knowledge of which is the foundation for the development of competencies in the use of modern languages, but also for the lifelong learning. In the mother tongue, the self-reflection, the self-investigation, the contemplation take place, involving metacognition processes, and leads to critical thinking, create the premises for lifelong learning.

The present analysis concerns the curricula according to the one that the students studied during high school. Starting from the mother tongue using skills, the "Romanian Language and Literature" curriculum suggests a series of competencies that involve the literary and non-literary text comprehension, its processing and interpretation, in order to use the information for diverse purposes.

Thus, the 9th form "Romanian Language and Literature" curriculum (Ministry of Education, Research and Innovation, 2009), stipulates "the appropriate use of linguistic acquisitions in the reception of various texts" (specific skill 1.1), of the specific structures of the text (specific skill 1.2.), expressing student's own reactions and opinions regarding the texts (specific skill 1.3), the recognition of textual themes, the application of specialized concepts in the text analysis. From the metacognition processes perspective, they involve exploring learning strategies, knowing them, understanding their role in learning, control and self-regulation. The operationalization of the obtained information can be found in the following skills: 2.1. "to practice the techniques aimed at understanding literary and non-literary texts", 2.3. "comparing different ideas and attitudes in the use of the same theme", detailed for the literary text in competences 2.4, 2.5 and 2.6. Given the general nature of the competencies proposed by the curriculum, the learning activities are supposed to carry into effect the "techniques aimed at understanding texts" or "the comparison of ideas and attitudes". The high school curricula do not provide examples of learning activities, leaving the full responsibility for the development of metacognitive processes to the teachers, but the later curricula offer suggestions for learning activities, such as associating elements of the real world/personal experience with texts information. In this regard the "Double entry journal method" is usually used, as it can facilitate the text and world understanding at the same time, as well as the comparison of the personal experiences with text information.

For a deep understanding of the text's reality, the 1.1. specific skill, from the 10th form, ""Identification of the features and the stylistic functions of the language in the reception of different types of texts" ("Romanian Language and Literature curriculum", 10th form) (Ministry of Education, Research and Innovation, 2006a) introduces elements of stylistics and pragmatics in the approach of the texts, aiming at communication intentions, nuances and attitudes comprehension. Therefore, the metacognitive process aims at the integration of stylistic features in different communication contexts, in order to compare and establish the differences between them. The learning activity can use the method of "Quadrants", the texts proposed in each quadrant being different, but the stylistic particularity pursued being the same. The students should observe its changes from one text to the other, discovering the relationship between the context and the form of communication, in order to use that structure according to their needs afterwards. The activity develops cognition, control and self-regulation processes, not very much in understanding the text, but in using it according to one's own needs, for the development of communication skills. In the same syllabus, the 2.4.th skill, "The use of various ways of understanding and interpreting the studied literary texts", implies metacognitive processes although it focuses on the literary text. However the use of personal life and reading experience, the application of the concepts of literary theory, stylistics and pragmatics in the interpretation of the read information is not missing. Thus, the metacognitive process involves not only underlining, annotating, returning to the read fragments, asking questions and referring to reference documents, but also reformulating, extracting the main ideas or even filling in the blanks some lacunar texts. The latter can be used in the classroom to ensure the visibility of metacognitive strategies and processes: by filling in the blank texts, the students will notice the moments of returning to the information, the selected elements, the comparisons and the combinations required by the proposed metacognitive strategy. In the 11th grade curriculum "Romanian Language and Literature" (Ministry of Education, Research and Innovation, 2006b) the skill 3.4., "Appropriate use of documentation techniques and research of a topic", enlarges the metacognitive process to complex learning experiences, as the documentation involves both conscious reading, application of concepts, selection of materials, evaluation and synthesis of information, interpretation and points of view argumentation, all of them aimed at

higher-order thinking operations. The learning activities can suggest various methods and means, among which those that develop critical thinking represent the central element, so that the argumentation, demonstration and the techniques associated to them occupy, naturally, extensive spaces in the curriculum. Among the competencies provided by the 12th grade curriculum ("Romanian Language and Literature, 2006) (Ministry of Education, Research and Innovation (2006c), 2.1.st skill, "Adaptation of the reading strategies to the studied literary texts features, in order to understand and personalize the interpretation" focuses directly on metacognition processes, as it involves the use of reading strategies that the student must adapt to the literary text. Beyond specific metacognitive strategies, operational concepts of literary art are added here, without the latter excluding the former.

However, the analysis of the "Romanian Language and Literature" curriculum highlights the focus on the literary text and its structures, the analysis and the interpretation of literature, emphasizing the need for knowledge of the national culture, to the detriment of the language use as a prerequisite for school success and social integration. However, even using the literary text, the teacher has the opportunity to insist on the mechanisms of metacognition, on the formation of critical thinking, to create the necessary foundations for lifelong learning.

More pragmatic and communication process oriented, the modern language curricula pay more attention to the metacognitive processes. Thus the 1.1.st skill, "Identification of necessary and sufficient information for decoding the global meaning of oral messages", from the "English Language – Modern Language 2" curriculum (2006), technological branch: 11th and 12th grades, direct professional qualification route, 12th and 13th grades (Ministry of Education, Research and Innovation, 2006d, 2006e) - a, progressive professional qualification route, the 1.3 skill, "Identifying the expressed viewpoints and opinions", from the same syllabus and others, such as the 2.1 skill, "Identifying factual information needed for a task in texts on topics related to the field of activity" (English Language - Modern Language 2, 11th grade (Ministry of Education, Research and Innovation, 2006e), direct qualification route (all professional qualifications) 12th grade, progressive qualification route (professional qualifications: technician in trade activities, technician in gastronomy, banqueting organizer, technician in hospitality), the 1.2 skill, "Deducing the meaning of some unknown elements from a heard message from the context" aims at metacognitive strategies awareness,

both in terms of obtaining relevant information for learning strategies, and for their operationalization. Besides these, more important and of interest for the self-regulation of the learning process are the skills of operationalizing the metacognition. Thus, the skills of obtaining information for solving some work tasks, such as 1.2 skill from the above-mentioned English syllabus, 2.1 skill or 2.2 from the 2006 "Modern Language (English) 1 syllabus", associated with others, such as "Using reference materials to identify the meaning when necessary" (2.3.), "Requesting and providing clarifications and explanations when information is not immediately understood" (3.3.), "Initiating appropriate actions to confirm or clarify the meaning" (1.3) from the "Modern Language curriculum (English) 1 syllabus" 12th(Ministry of Education, Research and Innovation, 2006e), direct qualification route (all professional qualifications), 13th grade, progressive qualification route (all professional qualifications) represents a starting point in language learning strategies. The students learn how to use the dictionaries and to ask questions to clarify misunderstandings. The 1.3 skill of the "Modern Language (English) 1", 13th grade (Ministry of Education, Research and Innovation, 2006e), progressive route, more general, requires the teachers to initiate learning activities both for learning the foreign language and for developing the metacognitive processes associated with language learning. "Appropriate actions" suggested by the curriculum can be operationalized in the approaching of the reference materials, reformulation, asking clarifying questions, leading to another skill suggested by the mentioned syllabus, 5.4., "verifying the understanding and asking/providing clarifications/explanations when information is not clearly understood, in conversations". This one is correlated with the transfer of information in various forms of presentation or with 3.1 from the Modern Language curriculum 2 (English), 12th grade (Ministry of Education, Research and Innovation, 2006d), direct qualification route (all professional qualifications), 13th grade, progressive qualification route (professional qualifications: technician in trade activities, technician in gastronomy, banqueting organizer, technician in the hotel industry), "Giving and requesting instructions in order to perform a professional task". While in classroom, the activity can start with a text reading, using the SINELG method, in order to underline the elements that need clarifying, followed by asking clarifying questions, repeating and rewording some passages to check the understanding respectively, the use of reference materials, if applicable. Finally, the teacher can initiate a presentation of received

information, involving both the selection of the contents and their merging in a clear and coherent form. Although they are not always explicitly expressed, the metacognitive skills in modern language school syllabuses are associated with the awareness of their learning strategies, suggesting control and self-regulation mechanisms, to a greater extent than in the "Romanian language and literature" curriculum (Ministry of Education, Research and Innovation, 2006a,b,c; 2009, 2009a,b).

If within the „Language and communication" curriculum area the metacognition processes are somewhat implicit, aiming at the use of the language (native or foreign) for the students' study needs, more closely followed in modern languages, within the „Man and society" area, they have relatively low weights, the curricula focusing rather on the cognitive dimension.

However, metacognitive benchmarks can be identified in these syllabuses, which teachers can speculate on. Thus, in the Philosophy curriculum ("Philosophy" 12th form) (Ministry of Education and Research, 2006a), 2.2 skill considers the formulation of personal reasoning and personal appreciations regarding the various conceptions on the issue of human nature and the meaning of life. It involves metacognitive processes, as it requires the understanding of human nature and the meaning of life, the inventory and ranking of conceptions, their comparison, in order to formulate judgments and personal assessments. These, associated to the points of view argumentation (2.1. and 2.3. skill from the same curriculum), the interpretation of the philosophical text (skill 2.6), lead to a deep understanding of the discipline and the discussed issue, involving metacognitive processes. Although they are not explicitly formulated, metacognitive processes are implied, challenging both the student and the teacher in the classroom activity. The correlation of metacognitive processes with the use of life experience in the context of learning through 5.1 skill, "The analysis of some life situations, in order to identify some solutions, using the knowledge and philosophy's specific methodology" introduces an additional aspect regarding metacognitive strategies, problem solving, since the competence suggests the identification of solutions for aspects of practical life.

In the same curricular area, the "Geographyc syllabuses imply metacognitive processes through reasoning (skill 2.1., 9th and 10th grade) (Ministry of Education, Research and Youth, 2004a,b), case studies regarding the "functional relationship of some natural and social

elements" (skill 4.5.), the use and combination of different types of analysis of phenomena (skill 6.2.), the explanation of some relationships between "sciences, technology and the environment, through the analysis of some systems and structures" (skill 2.3., 11th grade) (Ministry of Education and Research, 2006b), "the transfer of statistical, graphic and cartographic information in other forms of presentation (skill 3.3, 12th grade)(Ministry of Education and Research, 2006c). Although the reasoning, the explanation, the case studies, the various types of analyses imply metacognitive processes, these can be found all over the Romanian curricula, the "Geography" one customizes these processes through the interpretation of statistical information, the transfer from one language code to another, from one graphic form to another deeply involving the subject in the act of learning, with moments of reflection, with returns and re-readings, with notes and annotations, giving rise to awareness, control and self-regulation of learning.

In the same curricular area with the "Philosophy" (Ministry of Education and Research, 2006a) and "Geography" (Ministry of Education and Research, 2006b,c).), the suggestions from in the "History" (Ministry of Education, Research and Innovation, 2009e,f) curriculum consider analysis and synthesis as higher-order mental processes, the skills aiming at "building statements based on historical sources and formulating conclusions relative to historical sources" (5.2 skill), comparative analyses (5.4 skill), understanding the message of the historical sources (5.1 skill) or "building thematic syntheses" (5.5). The metacognitive perspective of "History" programs is ensured by two fundamental elements for the development of historical thinking: highlighting the cause-effect relationship in a sequence of historical events or processes (skill 1.1) and "critical analysis of the action of personalities and human groups in various contexts (skill 2.4) correlated with the development of an investigative competence (5.6). The latter, considered a source of permanent learning in the syllabus of the upper cycle classes, (skill 4.1), is complemented by three unique skills in the architecture of the pre-university school curriculum: the 3.3 skill from the 9th grade (Ministry of Education, Research and Youth, 2004c), "self-evaluation related to the group values", skill 1.1. from the twelfth grade (Ministry of Education, Research and Innovation, 2009f), "building intra- and multidisciplinary explanations and reasoning regarding historical events and processes" and skill 4.2., from the same grade, "integrating the knowledge obtained in non-formal learning environments in the studied

historical phenomena analysis" (Ministry of Education, Research and Innovation, 2009e,f).

The curriculum practically extends the learning process of the specific contents, towards the values of the group, involving reflexive actions, through self-evaluation, towards other disciplines, requiring the approach of some phenomena and processes from different disciplinary perspectives, respectively, the introduction of experiential elements, by integrating, the knowledge acquired in non-formal environments in the analysis of the studied phenomena.

The "Logic and Argumentation"(Ministry of Education, Research and Innovation, 2009g) curriculum remains in the area of argumentation and reasoning, viewed from a cognitive rather than a metacognitive perspective, that of the teamwork, without evaluations or self-evaluations, but requiring the development of rational dialogue skills, negotiation and conflict resolution skills (skill 3.4.). A really important skill from this paper's point of view, the 4.4 skill, "The development of critical thinking, able of supporting active and responsible participation in the life of the society" implies the metacognitive processes that enable the participation in the social life although it is also found in other school curricula under various wording. It is approximately, also provided by the Psychology curriculum, (10^{th} form, 2004) in skill 4.1 (Ministry of Education and Research, 2004).

Focused on the subject of learning, the student, the mentioned curriculum suggests, in the 4.2 skill, "analysing the possibilities of personal development from the perspective of psychological knowledge", respectively, the evaluation of certain behaviours (skill 2.4.), and the problem solving (skill 3.3.). While the whole discipline is concerned with self-analysis, its application to the cognitive dimension implies a transfer that the teacher can easily speculate.

Discussions

The study of eighteen Romanian school curricula shows that the metacognitive skills have a poor representation. By comparison to the European syllabuses, especially the English and the Spanish ones, the Romanian Language and Literature programs do not insist on reasoning, though they underline the argumentation and the text interpretation. This is why we had to expand the study to other syllabuses. We found there the competencies that could lead to metacognition, the reasoning, the critical thinking, clarifying questions asking and the collaborative

learning. Although it is normally the foundation of learning, the "Romanian Language and Literature" syllabus does not focus on metacognitive strategies, like checking the understanding of the message through clarifying question asking, neither do other syllabuses, except for the modern language ones (English). The group activities and the collaborative learning also miss in the "Romanian Language and Literature" curricula, but one can find them in the "History" syllabus, though they focus on the group values and human community insertion. None of the curricula stipulate the answers' elaborating, comprehension showing or establishing the communication purpose according to the context or audience. The critical thinking, explicitly formulated is represented only in the "History", "Philosophy" and "Psychology" syllabuses. While in the European syllabuses there are specific references to the metacognitive skills, in the "Romanian Language and Literature" program they are vague. The metacognitive process and strategies have to be taught by the teachers, or they are left for the "History", "Philosophy", or the "Psychology" syllabuses. But these disciplines have a poor impact on the Romanian learning system, the number of hours is low, and sometimes neglected in some specializations. In this regard, one can understand that the teaching system focuses on the cognition, disregarding the thinking tools, or leaving them to the teachers' activity in the classroom.

What makes the difference in metacognition approach in the "Romanian Language and Literature" syllabus is the experiential learning. Reading the texts the students are asked to remember past experiences in order to understand the events or the characters. Further, in language teaching, the students are supposed to explore different forms of communication through elements of stylistic mostly. They are required to investigate communicative intensions, nuances of speech and attitudes. That is why some didactic methods are mentioned in the syllabus, as methodological suggestions, as they appear in this paper too. Recalling past experiences is the experiential strategy in other syllabuses too, in the Man and society curricular area, mainly in "Philosophy" and "Psychology" syllabuses. In the "History" program, the experiential learning refers to the search for answers in the past for the contemporary issues, to visit special historical places and so on. Although it is said that the metacognition can be taught in school, the school syllabuses pay little attention to it, focusing more on cognition, regardless of the country or the program. The English and Spanish

curricula stay closer to the thinking skills, while the Italian, French and Romanian syllabuses leave the task to the teachers. As a consequence, while the university teachers expect that the students have metacognitive skill, according to the school curricula these skills are low, being developed only through the former teacher's activity; otherwise they remain poor or develop random. Hence, the most important answer our study obtained is the fact that the metacognitive skills should be better represented in the school curricula.

Conclusions

The high school curricula generally focus on cognition, few of the specific competencies proposing forms of development of the metacognitive mechanisms. Among these, most of them directly aim at the knowledge and application of argumentative structures, through a burning of the stages whose absence the teacher must make up for. The teacher, in turn, should be able to use metacognitive strategies, and, through specific learning activities, to transmit them to the students. While the curricula are centred on the cognitive dimension, the difficulty of these tasks can be insurmountable for some of the members of the teaching staff, therefore, the need for training courses or mentoring guides could alleviate the inconveniences, really focusing the didactic activity on the student.

Our research aimed to find some prerequisites for the high school students' metacognitive skill development, in the school syllabuses. We are not in a position to establish the extent of turning into account of these prerequisites by the teachers in the school activity, just through the study of the syllabuses. On the other hand there are teachers that develop metacognitive skills through experiential activities or other learning strategies, even if the curricular basis does not require them explicitly. Our conclusions, extracted from a theoretical analysis, can be found more or less in the educational reality. The results of our research are a starting point for framing developmental syllabuses that help the teachers to reflect more on the need for metacognition developing in school. For the high school (even secondary school) teachers our research reports a problem, even if our research has its limits. The teachers should also think about how can the recover the metacognitive skills of the students, in the cases where they were not developed or poor developed during the high school studies.

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