

THE PROFILE OF THE LEARNING-TO-LEARN COMPETENCE IN PRIMARY SCHOOL STUDENTS

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Abstract. This paper outlines an operational profile of the learning-to-learn competence in primary school students, partitioning the construct into cognitive, metacognitive, and reflective components. The analysis operationalizes this transversal ability as a systemic configuration of knowledge, skills, and attitudes that facilitates autonomous knowledge acquisition. The cognitive component encompasses the psychological processes necessary for knowledge acquisition and schema organization; the metacognitive component governs self-regulation and monitoring; and the reflective component provides the critical, self-referential synthesis of educational experiences. These components interact to generate a unified typology of the autonomous, self-directed learner, thereby offering an objective conceptual framework for contemporary primary school pedagogy and empirical educational research.

Keywords: learning-to-learn competence, competence profile, primary education, metacognition, self-regulated learning.

PROFILUL COMPETENȚEI DE A ÎNVĂȚA SĂ ÎNVEȚI LA ELEVII DIN ÎNVĂȚĂMÂNTUL PRIMAR

Rezumat. Lucrarea de față propune un profil operațional al competenței de a învăța să înveți la elevii din învățământul primar, conceptualizând acest construct prin intermediul unor componente cognitive, metacognitive și reflexive. Analiza definește această competență transversală ca o configurație integrată de cunoștințe, abilități și atitudini care susțin dobândirea autonomă a cunoașterii. Componenta cognitivă include procesele psihice implicate în receptarea, prelucrarea și organizarea informațiilor în structuri cognitive coerente; componenta metacognitivă vizează autoreglarea, monitorizarea și evaluarea propriului proces de învățare; iar componenta reflexivă facilitează analiza critică și integrarea experiențelor educaționale în raport cu propria dezvoltare. Interacțiunea acestor componente conturează profilul elevului autonom și autodirijat, oferind un cadru conceptual relevant atât pentru pedagogia contemporană a învățământului primar, cât și pentru cercetarea educațională de natură empirică.

Cuvinte-cheie: competența de a învăța să înveți, profil de competență, învățământ primar, metacogniție, învățare autoreglată.

Within the framework of contemporary education, the learning-to-learn competence is recognized as a transversal key competence, essential for personal autonomy, social integration, and adaptability in the labor market. The proposed profile is grounded in a systemic and integrative approach that connects this competence to the principles of lifelong learning, to the innovative dimension of the educational process, and to the profile of the autonomous and reflective learner.

For the purposes of this study, the learning-to-learn competence of primary school students is understood as an integrated set of knowledge, skills, and attitudes organized

through the articulation of cognitive, metacognitive, and reflective resources. These resources are manifested through intellectual curiosity, motivation, engagement, critical thinking, self-esteem, the effective use of personal resources, and time management in diverse problem-solving contexts. They encompass the ability to identify, acquire, process, and assimilate new knowledge; adapt and apply learning strategies necessary for self-regulated learning; discover and utilize learning opportunities and resources; and develop flexibility, adaptability, reflective thinking, a growth mindset, and autonomous thinking across diverse learning contexts.

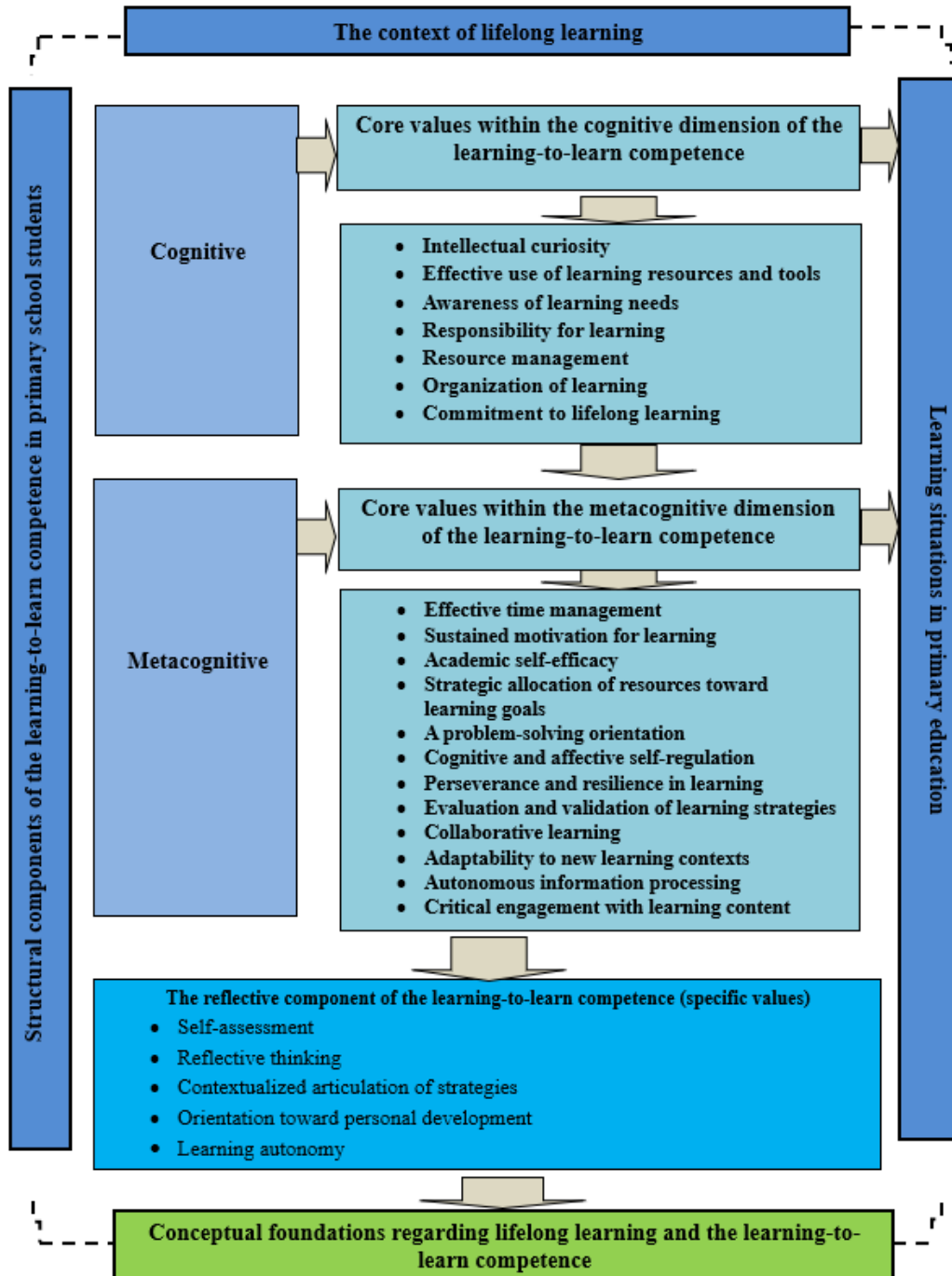


Figure 1. The Profile of the Learning-to-Learn Competence

Structural Components of the Learning-to-Learn Competence

The profile identifies three fundamental structural components:

1. *The Cognitive Component*

This component encompasses the skills and dispositions involved in the acquisition, processing, and organization of knowledge, constituting the functional foundation of active learning. The values associated with this component include:

- intellectual curiosity – the disposition to discover, explore, and understand new phenomena;
- effective use of learning resources and tools – the ability to engage with instructional materials, technologies, and diverse learning resources;
- awareness of learning needs – metacognitive awareness of knowledge gaps and the identification of learning goals;
- responsibility for learning – active engagement in and ownership of one's learning process;
- resource management – the effective management of time, effort, and information;
- organization of learning – the systematic organization of learning content and activities;
- commitment to lifelong learning – an orientation toward continuous personal and professional development through learning across the lifespan.

The cognitive component of learning-to-learn competence refers to the mental processes involved in the comprehension, elaboration, organization, and application of knowledge. These processes include attention, memory, perception, understanding, transfer, information organization, and the use of cognitive strategies in learning tasks.

The theoretical foundations of this component are found in *information processing theory* [1], which describes how information is encoded, stored, and retrieved in short-term and long-term memory; *meaningful learning theory* [2], which underscores the importance of anchoring new knowledge within existing cognitive structures; *self-directed learning theory* [9], which emphasizes the learner's autonomy and initiative in selecting learning strategies and regulating the pace of learning; and *the constructivist perspective* [5], which conceptualizes learning as an active process through which learners construct meaning from experience and interaction.

For the investigation of this component within the school context, the following research directions may be explored:

- the extent to which students employ cognitive strategies (e.g., repetition, paraphrasing, clustering, graphic organization), measured through learning strategy inventories;

- the effectiveness of planning in academic tasks, assessed through self-assessment protocols or semi-structured interviews focusing on the organization of learning activities.
- the ability of students to transfer knowledge across domains (e.g., from mathematics to science), examined through tasks involving progressively higher levels of abstraction and generalization;
- the relationship between epistemic curiosity and academic achievement, investigated using validated instruments such as the *Epistemic Curiosity Scale* (Litman, 2008);
- the development of metacognitive awareness and self-regulation over time, measured through assessments of learners' monitoring and regulation of cognitive processes.

2. The Metacognitive Component

This component reflects the processes of self-monitoring, self-regulation, and optimization of one's own learning. The values and dispositions associated with it include:

- effective time management;
- sustained motivation for learning;
- academic self-efficacy;
- strategic allocation of resources toward learning goals;
- a problem-solving orientation;
- cognitive and affective self-regulation;
- perseverance and resilience in learning;
- evaluation and validation of learning strategies;
- collaborative learning;
- adaptability to new learning contexts;
- autonomous information processing;
- critical engagement with learning content.

This component is essential for the development of the autonomous, self-reflective, and adaptable learner. The metacognitive component refers to the learner's capacity to become aware of and actively regulate their own cognitive processes during learning.

The concept of metacognition was introduced by Flavell [8], who defined it as *thinking about one's own thinking*, which constitutes a foundational capacity for the development of learner autonomy and learning effectiveness. Subsequently, Brown [4] structured metacognition into two major dimensions: knowledge about cognition (encompassing knowledge of oneself as a learner and of learning strategies) and regulation of cognition (comprising the planning, monitoring, and evaluation of the learning process). This component is supported by constructivist and social cognitive theories, including *self-regulated learning theory* [13], which emphasizes learners' control over motivational, behavioral, and cognitive processes, as well as *self-determination theory* [6], which links autonomous self-regulation to intrinsic motivation and perceived competence.

The metacognitive component may be explored through the following empirical approaches:

- self-regulation questionnaires calibrated for and adapted to school-age learners;
- metacognitive reflection journals, which serve as qualitative data sources for analyzing both the strategic pathways employed by students and their conscious awareness of errors;
- think-aloud protocol experiments, which facilitate the direct, real-time observation of active self-regulation processes;
- correlational analyses measuring the relationship between student self-regulation and academic performance, particularly within reading, writing, and mathematical problem-solving tasks;
- content analysis of semi-structured interviews with students and teachers concerning the cognitive difficulties encountered during learning and the strategies employed to address them.

3. The Reflective Component

This component supports the integration and internalization of learning strategies and contributes to the formation of a coherent learner identity. The associated values are:

- self-assessment: the capacity to evaluate one's own academic performance objectively;
- reflective thinking: the critical analysis of one's own learning processes and cognitive outcomes;
- contextualized articulation of strategies: the systematic selection and adaptation of methodological approaches in accordance with specific situational requirements;
- orientation toward personal development: a continuous commitment to self-directed growth and academic improvement;
- learning autonomy: the cultivation of internal motivation, personal volition, and accountability for one's educational trajectory.

The reflective component of the learning-to-learn competence concerns the learner's capacity to analyze, interpret, and integrate learning experiences within a coherent framework of self-understanding. This component is not reducible to simple awareness; it entails a deep, self-referential, and transformational processing of learning. Reflection is an essential process for the construction of meaning from experience [7], for the development of critical thinking [3], and for the formation of a conscious and adaptable learner identity. Within the proposed model, the reflective component functions as an integrative node between cognition and metacognition. It facilitates the development of a personal learning style, the recognition of experiential value in personal development, the internalization of effective strategies alongside the abandonment of dysfunctional ones, and the cultivation of a prospective stance toward one's intellectual trajectory.

The reflective component is grounded in established theoretical frameworks, including *Kolb's experiential learning model* [10], which delineates a four-stage cycle comprising concrete experience, reflective observation, abstract conceptualization, and active experimentation. Furthermore, it incorporates *Schön's model of reflective practice* [12], which distinguishes between reflection-in-action and reflection-on-action, alongside *McAdams's narrative identity model* [11], which posits that identity is constructed through the continuous reflective interpretation of an individual's learning biography.

The reflective component may be investigated through the following approaches:

- thematic or narrative analysis of students' reflective journals, focusing on the identification of recurring conceptual motifs and the specific psychological nature of the learner's relationship with academic failure;
- psychometric evaluation employing age-calibrated questionnaires designed to measure reflective thinking;
- semi-structured clinical interviews regarding significant learning experiences, deployed to identify the depth of student introspection and the phenomenological meanings attributed to learning;
- systematic observation of reflective discourse within dyads or focus groups during collaborative learning activities;
- evaluation of cumulative learning portfolios as longitudinal indicators tracking the development of self-reflection across an entire educational cycle.

The reflective component has a transversal and integrative role within the learning-to-learn competence model. In relation to cognition, it enables the reorganization and personalization of strategies. In relation to metacognition, it facilitates the validation and adjustment of self-regulatory processes. In relation to the axiological dimension, it promotes the construction of an educational identity grounded in autonomy, conscious learning, and personal meaning.

The reflective component is central to the internalization and sustainability of learning. It transforms learning from an act of accumulation into a process of self-development, with long-term effects on motivation, self-esteem, adaptability, and the sense of purpose in learning. At the primary level, this component may be activated through simple, recurrent, and meaningful activities that encourage personal expression and the development of a constructive relationship with the educational experience.

The three components are interdependent and complementary, jointly constituting a complex profile of the autonomous learner. The cognitive component provides content and strategy; the metacognitive component ensures control and adjustment; and the reflective component adds meaning, direction, and depth to the learning process. Their integration constitutes the key to an educational approach with lasting impact.

In conclusion, the structural profile of the learning-to-learn competence developed in this study responds to an important need in early childhood pedagogy. Instead of treating scholastic adaptability as a collection of isolated study routines, this model demonstrates how specific cognitive tools, regulatory mechanisms, and self-reflective practices directly influence one another during early childhood development. This perspective offers an alternative to fragmented instructional approaches and supports the development of autonomous learning from the beginning of formal schooling.

The analysis of the relationships between these components suggests that scholastic development is sustained through an ongoing cycle of learning activity. Strategic knowledge processing creates foundational cognitive schemas; autonomous monitoring modifies those schemas during academic challenges; and critical self-assessment transforms personal experiences into stable internal motivation. In primary classrooms, this interaction indicates that cognitive development is closely linked with the development of learner autonomy. As a result, the proposed typology can be used both as an analytical framework for researchers and as a practical reference for teachers.

From an institutional perspective, the profile offers guidance for curriculum development and teacher education. Its implementation implies a shift from content-centered instruction toward approaches that emphasize learning processes. Teaching practices should encourage pupils to evaluate their strategies, respond to learning difficulties, and take responsibility for their progress. The research methods associated with each component also provide directions for further empirical studies, particularly longitudinal designs that examine how these competencies develop over time. Therefore, this study establishes a precise structure for an educational approach that equips young learners with the enduring capacity to manage increasingly complex informational environments.

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