

THEORETICAL CONCEPTUALIZATIONS REGARDING SCHOOL CURRICULUM MONITORING FROM THE PERSPECTIVE OF STUDENT THINKING DEVELOPMENT

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The article explores the importance of curriculum monitoring from the perspective of students' thinking development. It outlines the evolution of the curriculum as a central tool in education, defining the learning path and educational objectives. An analysis is made of the historical development of the curriculum and its various definitions and components. The paper proposes a multidimensional approach to curriculum monitoring, including both the analysis of curricular documents and the use of qualitative and quantitative methods to assess the impact of the curriculum on the development of students' thinking. It also emphasizes the relevance of adapting the curriculum to students' needs and their cognitive development stages. Finally, future research directions are presented, highlighting the importance of continuous curriculum monitoring from the perspective of students' thinking development, in order to meet the needs of a constantly changing society.

Keywords: *cognitive development, curriculum, students, thinking, monitoring, educational system, empirical research.*

CONCEPTUALIZĂRI TEORETICE PRIVIND MONITORIZAREA CURRICULUMULUI ȘCOLAR DIN PERSPECTIVA DEZVOLTĂRII GÂNDIRII ELEVILOR

Articolul explorează importanța monitorizării curriculumului din perspectiva dezvoltării gândirii elevilor. Este elucidată evoluția curriculumului ca instrument central în educație, definind traseul de învățare și obiectivele educaționale. Este efectuată o analiză a evoluției istorice a curriculumului și diversele sale definiții și componente. Lucrarea propune o abordare multidimensională a monitorizării curriculumului, incluzând atât analiza documentelor curriculare, cât și utilizarea unor metode calitative și cantitative pentru a evalua impactul curriculumului asupra dezvoltării gândirii elevilor. De asemenea, se accentuează relevanța adaptării curriculumului la nevoile elevilor și la stadiile lor de dezvoltare cognitivă. În final, sunt prezentate direcțiile ulterioare de cercetare și este menționată importanța monitorizării continue a curriculumului din perspectiva dezvoltării gândirii elevilor, pentru a răspunde nevoilor unei societăți în continuă schimbare.

Cuvinte-cheie: *dezvoltare cognitivă, curriculum, elevi, gândire, monitorizare, sistem educațional, cercetarea empirică.*

Introduction

In a constantly changing society, educational systems face persistent pressure to modernize their approaches and methods to ensure students are equipped for present and future challenges. The school curriculum, the cornerstone of the educational process, plays a crucial role in this dynamic, providing the framework for developing the cognitive, emotional, and social skills essential for individual and collective success.

Curriculum monitoring is the process of continuously evaluating its relevance, efficiency, and impact on student development. This practice becomes indispensable in light of rapid technological advancements, globalization, and the diversification of educational needs. For instance, integrating new technologies into education or fostering transversal competencies like critical and creative thinking necessitates frequent adjustments and revisions to the curriculum. Monitoring offers the opportunity to identify gaps, adjust content, and implement innovative teaching strategies.

Historically, education was spontaneously and informally organized by religion, families, or communi-

ties. Starting in the late 18th century, states recognized the potential of developing educated workforces to strengthen economies and promote national identity through public schooling. Governments were prepared to bear the high costs of providing this public good, given its broader benefits for societies and economies. New structures replaced and absorbed traditional educational models. Access to more education improved individual opportunities, enabling those who climbed the educational ladder to achieve higher living standards and greater returns [1].

The curriculum, as a normative document fundamental to organizing the educational process, derives from the Latin term referring to a well-defined learning path, inspired by „curriculum vitae”, which denotes the path of a person’s life marked by significant circumstances [2, p. 72]. The term „curriculum” entered the vocabulary of education in the late 16th and early 17th centuries [3, p. 80], initially appearing in medieval university documents (e.g., Leiden, Netherlands, 1582; Glasgow, Scotland, 1633). One of the earliest lexicographic mentions appears in *The Oxford English Dictionary*, defining it as „a prescribed course of study or instruction in a school or university”. By the mid-19th century, the term „curriculum” was commonly used worldwide to refer primarily to the informational content of educational programs.

Monitoring is a continuous process of following, observing, supervising and controlling an educational fact or phenomenon, in which information and data are collected, analyzed and interpreted in order to evaluate the supervised educational fact or phenomenon and to take necessary decisions. Monitoring the implementation/functioning of the school curriculum means the systematic and continuous monitoring of how the education system and process behaves in relation to the proposed changes. Regarding the education process, three types of monitoring are distinguished:

- administrative monitoring, which refers to the follow-up/supervision of compliance with the legal provisions regarding the education plan, curriculum, textbooks, the organization and development of the educational process, etc.;
- formative monitoring, focused on monitoring the learning process: for example, the periodic administration of criterion tests aimed at the essence of a study program, allows the identification of problems, difficulties in its development, etc.;
- monitoring/piloting school performance, which is generally achieved with the help of normative tests; they have the role of informing, in comparative terms, about what schools and classes „produce” [4].

Results and discussions

The core terms related to the curriculum are „school discipline” and „study program”. Building on these, various definitions of „curriculum” over time have focused on aspects such as learning experience, objectives, content and their interrelations, its prescriptive and axiological dimensions, and its nature as a project requiring implementation. Below are several definitions reflecting both the historical-geographical dimension and educational policy perspectives [5, p. 109]:

- „The curriculum indicates the list of contents of school subjects” (G. Mialaret, 1979).
- „The curriculum refers to the purpose and content of an educational program, together with their organization” (D. Walker, 1990).
- „The curriculum is considered a project that defines the purposes and objectives of an educational action, the paths, means, and activities used to achieve these purposes, as well as the methods and tools necessary for evaluating the results obtained” (L. D ‘Hainaut, 1981).
- „The curriculum represents the plans developed to guide learning in schools - usually materialized in documents of varying levels of generality - and the implementation of these plans in classrooms; students’ experiences take place in a learning environment that also influences what is learned” (A. Glatthorn, 1981).
- „The curriculum is a set of interrelated plans and experiences that a student undertakes under the guidance of the school” (C. J. Marsh, K. Stafford, 1988).
- „The curriculum includes any educational activity developed by the school and directed towards a goal, taking place either within or outside the institution”.
- In its broadest sense, the curriculum „encompasses any personal experience acquired in various socio-cultural contexts and situations” (UNESCO, 1975).

-, „The conceptualization of the curriculum, its comprehensive approach, involves identifying the cognitive acquisitions that are available and compatible, which can be coherently selected and articulated into an integrative curriculum concept. For this integrative approach, three premises are important:

1. The notion of the curriculum is multidimensional, implying multiple levels of analysis;
2. This concept can be defined by a family of terms, within which each has its own legitimacy, but none, in isolation, is sufficient to express the essence of the curriculum;
3. The curriculum is not a static concept but one that undergoes continuous growth and successive enrichment [6].

The implementation of any curriculum requires close monitoring, the development of a coherent action plan for this purpose, and a clear methodology for conducting the monitoring process. The goal set before schools today is to equip students with a set of functional competencies, necessary either for transitioning to a higher level of education or for more successful integration into society [7].

According to the theory and methodology of curriculum design and development, the school curriculum, like any normative act, is subject to periodic evaluation and continuous monitoring. Through monitoring and evaluation, the extent to which the curriculum specifies when, what, how much, and how learning occurs is assessed, alongside the quality of its normative description of the educational vision of learning and the projective quality of forecasting the educational effects that learning will have in each school discipline within an educational cycle.

The monitoring process, as well as curricular evaluation, will consider a series of value-based principles:

- The principle of aligning the curriculum with national and international socio-cultural contexts;
 - The principle of openness to current developments in curriculum-related issues;
 - The principle of coherence in the relationship between the curriculum and the goals of the educational system, as well as the relationship between the various intrinsic components of the curriculum;
 - The principle of relevance in formulating educational objectives, grouping curricular areas, and selecting content;
 - The principle of optimal horizontal and vertical articulation of all elements within the curricular process [8].
- The criteria for designing the procedure for monitoring curriculum implementation should include the following parameters of analysis:
- Is the curriculum relevant to learners, i.e., is it perceived by students as suitable for their current, future, and developmental needs?
 - Does the implemented curriculum have flexibility, i.e., does it allow for the emergence and manifestation of individual learning differences?
 - Does the curriculum ensure continuity, i.e., does it facilitate a smooth transition from one educational level to another?
 - Are educational institutions encouraged to develop portions of the curriculum tailored to the needs and characteristics of their student populations? [9].

The information presented in this article reflects the initial research on the topic: „Theoretical conceptualizations regarding the monitoring of the school curriculum from the perspective of student cognitive development” within the research project „Theory and Methodology of Continuous and Cyclical Monitoring and Development of the School Curriculum”. The research aims to address fundamental questions about how the curriculum influences students’ cognitive development, serving as an effective tool for cultivating cognitive skills in students of various ages.

The investigative perspective is psychological and focuses on the following main directions to be implemented during the research project:

1. Initially, we aim to clearly define the concept of “curriculum monitoring,” considering its formative and summative dimensions. We plan to begin the research by analyzing curriculum theory, learning and evaluation theories, as well as more specific theories such as the constructivist or socio-cultural theories. Useful questions to be clarified here include:

- What is the curriculum, and what are its components (objectives, content, methods, evaluation)?

- How are the general goals of education reflected in the curriculum?
 - How does the curriculum respond to the needs of a changing society?
 - What learning theories underpin the design of the curriculum?
 - How do these theories influence the choice of content, teaching methods, etc.?
2. It is essential to establish a clear connection between the key concepts of the research topic (curriculum and thinking) and to identify indicators that allow us to assess students' progress in developing different types of thinking. Questions we aim to address in this section include:
- What are the basic psychological theories that explain thinking processes (e.g., Piaget, Vygotsky, Bruner), and how can these be integrated into the curriculum?
 - What are the main types of thinking, and how can they be developed?
 - The zone of proximal development – what activities foster efficient and functional thinking development?
 - How are the objectives targeting the development of thinking formulated in the curriculum? Are they measurable and aligned with Bloom's Taxonomy levels?
 - What types of content are most suitable for stimulating different types of thinking?
 - Are effective teaching methods being used to develop various types of thinking (e.g., discovery learning, problem-solving, projects, case studies, etc.)?
 - How can students' thinking development be assessed? What tools and techniques are appropriate (rubrics, portfolios, alternative tests)?
 - What implicit messages and values does the curriculum convey, and how can these influence the development of thinking?
3. We aim to present the characteristics of thinking development at different age stages and their specifics for various educational levels according to psychological literature. Piaget's theory on cognitive development stages still provides much clarity on specific modes of thinking. Understanding these stages allows teaching strategies to be adapted to students' developmental levels. For example, practical activities and manipulations are essential for preschoolers, while adolescents can engage in abstract discussions and solve complex problems. Additionally, components of thinking and the critical role of schools in cultivating them can be analyzed. Thus, it is logical to expect the curriculum to include activities that stimulate all these components of thinking, tailored to students' developmental levels.
4. Highlighting the most important types and dimensions of thinking: convergent and divergent thinking, inductive and deductive reasoning, abstract or concrete thinking, critical, creative, analytical, emotional, moral thinking, etc. Understanding these types of thinking is essential for teachers aiming to create effective learning experiences. Through diverse and engaging activities, teachers can stimulate the development of all types of thinking in students.
5. It is important to analyze how students' thinking develops within various school subjects. Thus, we will examine the curriculum across several disciplines to understand how they foster thinking development. We believe that every school subject offers a suitable ground for cultivating specific types of thinking. For example, humanities subjects can effectively develop thinking through text analysis, understanding literary concepts, and comparative source analysis. Science subjects easily foster logical, analytical, and abstract thinking. The arts, for instance, can stimulate creative, imaginative, and aesthetic thinking. Physical education can contribute to developing critical and strategic thinking through exercises and sports games.
6. We will approach the curriculum for different subjects as a tool that can either facilitate or inhibit the development of students' thinking. It is important to identify curriculum elements that positively impact this development.
7. To this end, qualitative methods (interviews, case studies, curriculum analysis) and quantitative methods (questionnaires, systematic observations) can be used. The primary objective remains a detailed analysis of the curriculum for various disciplines, focusing on how activities targeting the development of students' thinking are integrated. However, we also propose complementing this information with administering questionnaires to teachers and students to gather their perceptions regarding how the curriculum is monitored and its impact on the development of students' thinking.

8. Finally, synthesizing the obtained results, we aim to offer recommendations and examples of activities that can be integrated into various subjects to stimulate cognitive processes in general and students' thinking in particular.

By adopting a psychological perspective on curriculum monitoring, the research can make important contributions to understanding the relationship between curricular structure and students' cognitive development. Thus, the project will provide concrete recommendations for optimizing the educational process and contribute to improving the quality of education in Moldova and beyond.

Conclusions

Summarizing the above, we highlight the importance of monitoring the school curriculum from the perspective of developing students' thinking. The monitoring process must be not only continuous but also adapted to the cognitive needs and socio-cultural context of students. By integrating educational and psychological theories, the curriculum can effectively contribute to developing various types of thinking, such as critical, creative, and analytical. Furthermore, adapting teaching and assessment methods to students' developmental stages is essential for maximizing the educational impact. Developing an effective curriculum that promotes students' thinking requires close collaboration among researchers, teachers, psychologists, and parents. Through a joint effort, we can create an educational system that provides all students with the opportunity to maximize their cognitive potential.

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