

Las funciones didácticas desde un enfoque interdisciplinario comunicativo
Didactic functions from a communicative interdisciplinary approach

Pedro Oscar Pérez-Batista; Santa Gloria Bernal-Armenteros

Universidad de Oriente, Santiago de Cuba, Cuba

Correo(s) electrónico (s)

pedrop@uo.edu.cu

gloriab@uo.edu.cu

ORCID:<http://orcid.org/0000-0003-3944-8817>

<http://orcid.org/0000-0002-3322-0355>

Recibido: 6 de noviembre de 2023

Aceptado: 16 de enero de 2024

La práctica pedagógica, la observación, análisis y síntesis de forma sistemática en el ámbito escolar y el intercambio profesional, manifiestan insuficiencias en cuanto al enfoque interdisciplinario comunicativo. Lo anterior conlleva a establecer como objetivo argumentar el proceder metodológico que ilustre a los docentes vías acerca de cómo ofrecer un mejor tratamiento a sus clases, desde un enfoque interdisciplinario comunicativo. La división de la clase en los distintos pasos didácticos es una cuestión fundamental para la estructuración de la clase, para garantizar de un poder seguro, un saber seguro y se obtiene mediante la formación y asimilación consciente. Para elaborar la propuesta se utilizaron métodos de nivel teórico y empíricos.

Palabras clave: Interdisciplinario comunicativo; Funciones didáctica; Tareas didácticas; Proceder metodológico; Didáctica.

Abstract

The pedagogical practice, the observation, analysis and synthesis in a systematic way in the school environment and the professional exchange, show insufficiencies regarding the interdisciplinary communicative approach. The above leads to establish as an objective to argue the methodological procedure that illustrates to the teachers ways on how to offer a better treatment to their classes, from a communicative interdisciplinary approach. The division of the class in the different didactic steps is a fundamental question for the structuring of the class, to guarantee of a sure power, a sure knowledge and it is obtained by means of the formation and conscious assimilation. Theoretical and empirical methods were used to elaborate the proposal.

Keywords: Communicative interdisciplinary; Didactic functions; Didactic tasks; Methodological procedure; Didactic.

Introduction

At present, the Ministry of Education of Cuba is immersed in a series of changes and transformations, which are reflected in the conceptions and practices of the training and professional performance of teachers and professors, within this, it acquires special connotation, standing as a basic principle, the achievement of a greater interdisciplinarity, all of which, implies new challenges in the direction of the teaching-learning process.

Among the essential lines to reach this longed-for purpose, the permanent improvement of primary teachers, who are responsible for organizing and directing the teaching-learning process in Primary Education, occupies an important place.

For the teaching process, it must be taken into account that the knowledge, abilities and skills acquired in Marxism-Leninism, General Didactics, Pedagogy, Psychology, Mother Tongue and Mathematics have to be constantly used.

In this sense, in the teaching-learning process in Primary Education, there are limitations in the establishment of a communicative interdisciplinary approach, which enables to offer a more effective treatment to it, taking into account the main learning problems.

These limitations are revealed by the diagnosis made to students and teachers of this level, which revealed the following insufficiencies:

In students:

- In the development of skills for the study of textbooks and other complementary materials of the primary level, which have a fundamental role in the analyses in each of their teaching activities.
 - In the work with the stages of orientation, execution and control in order to achieve quality in the teaching-learning process.
- In the mastery and management of the basic communicative skills of the language with emphasis on understanding what they read or hear; in speaking correctly and writing with good spelling, calligraphy and writing.

In teacher:

- The interdisciplinary relationship established by teachers is reduced to the system of knowledge, excluding the system of intellectual, practical and teaching work skills, as well as values resulting from the teaching-learning process.
- There is a lack of systematicity in the work with the generalized common vocabulary in a close link between the scientific (technical and operational vocabulary of each subject) and the everyday.
- The teaching of methodological strategies to reveal the independent search for knowledge, to arrive at conclusions, to achieve the appropriation of generalized procedures of mental work, by the active and creative conception itself, is insufficient.

It is necessary to mention the role of the initial diagnosis, since it allows us to know the starting level, the current situation of the students to face the curriculum and thus, to be able to design precise, particularized and heterogeneous actions aimed at providing the prioritized attention required by each student.

Addine (1998) expressed, "Curricular interdisciplinarity involves an institutional approach of each center, since only from the collective commitment of this, the integral formation approaches the desired ideal" (p. 17).

The above allows us to consider that teachers should form the guiding elements of where to produce change in the teaching-learning process. These elements constitute lines of work, which guide the continuous improvement of Primary Education, based on the needs of Cuban society in terms of the integral formation of the new generations, by focusing attention on the goal and objectives; the psycho-pedagogical characterization of the schoolchild by moments of development and the conception of a developmental teaching-learning process with the dimensions and indicators, which guide the change.

From this point of view, it is necessary to elaborate actions in the curricular strategy from Didactics, which, taking as a basis what is regulated by the Study Plan, contribute in a punctual way to the Educational Project and enable the transformation expected by the pedagogical group and the students, by promoting a differentiated and personological treatment of each one, allowing them to overcome the obstacles and involving them in their own learning.

Consequently, the following methodological conceptual problem is determined:

How to give treatment to the insufficiencies that are presented in Primary Education, from a communicative interdisciplinary approach, which promotes the elevation of the quality of the teaching-learning process.

Its importance is manifested, firstly, in the possibility of strengthening the performance of primary teachers, considering the relationship that can be achieved between knowledge, skills and spheres of professional performance from an interdisciplinary communicative work, and secondly, because it constitutes a way to illustrate how, from assuming the interdisciplinary cognitive nodes, it is possible to proceed promoting an acting and thinking that is transferable to the subjects taught.

From this point of view, the methodological objective is to argue the methodological procedure that illustrates to the primary teachers ways on how to offer a better treatment to the subjects they teach, from a communicative interdisciplinary approach.

This methodological objective intends to contribute to raise the quality of students' learning, so that from the very conception of the class systems, they offer outlets to the interdisciplinary cognitive nodes and seek ways that favor the preparation of the student, from the mastery of the content of science and in favor of the conformation of modes of action, to be implemented in his performance as a primary teacher.

Development

Studies on interdisciplinarity are diverse. At the international level, the United Nations Educational, Scientific and Cultural Organization (UNESCO, 1987); in Cuba (Fiallo, 2001; Caballero, 2003; Álvarez, 2007; Barrera, 2008), among others, stand out.

What is understood by interdisciplinarity?

UNESCO (1987), states that interdisciplinarity is "the encounter and cooperation between two or more disciplines, each of them contributing at the theoretical and empirical level with its own conceptual schemes, its way of defining problems and its methods of analysis" (p. 43).

For his part, Fiallo (1996), states that "...it is a process and a work philosophy, a way of thinking and proceeding to know the complexity of objective reality and solve any of the complex phenomena it poses" (p. 32).

It is evident how the definitions have been moving in recent years, declaring as a regularity in both, that it is an unavoidable necessity to solve the problems that arise from concrete methods. These analyses recognize that in the teaching-learning process, learning situations are revealed, starting from the natural and social reality that must be solved through interdisciplinarity.

Interdisciplinarity essentially consists of a collective work taking into account the interaction of scientific disciplines, their concepts, guidelines, methodology, procedures, data and organization in teaching. An interdisciplinary attitude would avoid any danger of recognizing the limits of the knowledge of a given discipline in order to accept the contributions of other disciplines.

From the above, we infer a well-organized and directed methodological treatment that enables finding in the work, the integrating cognitive nodes, understood as those contents of a topic of a given subject, where knowledge, skills and values associated with it are integrated, which serve as the basis for a process of interdisciplinary articulation in Primary Education.

After studying the different meanings and definitions of the term interdisciplinarity, by different national and international researchers, we assume the one expressed by Barrera (2010), who states: "We assume communicative interdisciplinarity from a perspective that, from an interdisciplinary communication, systematizes the relations of this nature in the curriculum and its development in practice:

Communicative interdisciplinarity is assumed from a perspective that, from an interdisciplinary communication, systematizes the relationships of this nature in the curriculum and the development of this in practice. Its interobject is communication, and its nodes are the functions and components of its structure, particularly the sign, language, text and its methods. At the same time, it can be conceived as a circular process that begins with the diagnosis of a problem: educational, learning or developmental, and passes through epistemological, theoretical, methodological and pragmatic levels, presupposes the establishment of interdisciplinary communicative relationships (p.764). (p.764).

Therefore, it is considered more generalizing, since it recognizes teaching and learning as communication processes, given in practice and having as basic unit the sign, the language, the text and its methods, giving rise to the concept of communicative interdisciplinarity.

Undoubtedly, it is necessary a well-organized, executed and evaluated methodological treatment that facilitates the integrating cognitive nodes, meaning those contents of a subject or discipline, where knowledge, skills, habits and values associated with it are integrated, as a basis for an interdisciplinary process in Primary Education.

Therefore, it is necessary to teach how to do interdisciplinarity from the methodological and didactic point of view, for which the following interdisciplinary cognitive nodes are revealed:

- The elements of knowledge
- The relationship between the objectives and the integration of skills in the disciplines
- The forms of organization of teaching
- The productive methods of teaching
- Indicators to evaluate the teaching-learning process and evaluation
- Evaluation

It is then, an integrating idea, a strategy at the level of the whole curriculum, which specifies, grade by grade, which are the actions that each subject must fulfill, so that at the end of Primary Education, the student possesses a safe power conditioned to a safe knowledge.

This requires much effort from teachers, to achieve in the different subjects, grades and groups, a timely theoretical-scientific direction, to achieve qualitative and quantitative leaps in the learning of students, which will reveal superior modes of action in the teaching-learning process, as part of the knowledge and performance.

The importance of the subject that concerns us is based on the need to offer the pertinent and punctual treatment to the learning problems, which from the scope of the interrelation between the knowledge, abilities and values that the students possess, will revert in the spheres of professional performance and also arrive at a consensus, that will enable, in the short term, to offer treatment to the integrating nodal points where all the subjects come together so that the modes of action become a form of interdisciplinary work for all teachers, with a systemic, integrating and systematizing character.

Currently, we are working on the systematization of the four great communicative skills: listening, speaking, reading and writing, with which we interact in correspondence with other skills such as: identifying, comparing, understanding, explaining, demonstrating, exemplifying, substantiating, arguing, among others. Undoubtedly, communicative skills are valid for all subjects, with them, students can appropriate knowledge and evaluate themselves within the teaching-learning process, demonstrating the knowledge acquired.

For the conception of this topic, a wide bibliographic review was carried out in order to deepen in the theoretical elements, which serve as foundations and referents to intervene in the methodological conceptual problem; Among these bibliographic sources, the most significant are

(Álvarez, 2007 and Barrera, 2010), both of which address from different angles, but with an updated and renewing perspective, what concerns interdisciplinarity and its application in the curriculum, although the first author frames it in the learning of science; her proposal is transferable to any other subject or discipline.

Fiallo (2001) offers a systematization of interdisciplinarity, while Horruitiner (2009) approaches the subject from a holistic perspective that is interesting and motivating.

Roméu (2007), from a dialectical-materialistic conception, defines language as an essential means of cognition and social communication, highlights its two essential functions: the noetic or cognitive and the semiotic or communicative; based on the postulates of the historical-cultural school and recent research on communication. In addition, it addresses the constant linkage to an interdisciplinary conception, which has its origin in the very nature of human knowledge.

It is essential to consult Labarrere and Valdivia (1988), in order to acquire a solid pedagogical background that allows explaining, from an updated point of view, the behavior of the developmental teaching-learning process, from the management of its categorical terms.

Mercaderes (2006), a consultation on the forms of organization of teaching in higher education, is of unquestionable value for those of us who work at this level of education due to the clarity and precision of the ideas presented therein on the subject.

In topic IV of the III National Seminar for educators, the stages to be considered for the achievement of interdisciplinary relations are offered, as well as the guidelines of interdisciplinarity with a clear and precise language.

It is worth noting that the development of vocabulary and the expansion of the lexical flow are enhanced, all these elements being seen in terms of the process of meaning (comprehension and construction of texts), thus complying with the rules of the cognitive-communicative and sociocultural approach, which are then systematized from the methodological structuring of the contents that are worked on in elementary school.

This also requires teaching the student methodological strategies to reveal the independent search for knowledge, to reach conclusions, to achieve the appropriation of generalized procedures of mental work, by the own active and creative conception.

Didactic functions or didactic tasks are understood as the stages, elements of the teaching-learning process, with a general and necessary character. In practice, these functions are mutually present and all of them work closely together.

The didactic functions are:

- Preparation of the new subject matter

Assurance of the previous conditions

Motivation

Orientation towards the objective

- Work on the new subject.

Elaboration of new knowledge and new power

- Working with the new material

Fixation, control and evaluation

Let's see then, the preparation of the new subject:

- This is where the knowledge, abilities and skills necessary for the subject matter are ensured; creating motives, to awaken interest in such activity and orient them on actions to be performed.
- Starting level, it contemplates the previous conditions that respond to the objectives of the fields of knowledge and power, as well as the development of capacities, abilities and particularities of the personality. It must be prepared in time.
- Assurance of the preconditions, it is the means to achieve affordability and systematization of teaching. They can be carried out in the previous classes and in the daily exercise.

Proceeding of the teacher to ensure the previous conditions

- Analysis of the objectives proposed by the program for the treatment of the content.
- Determine the knowledge, abilities and skills that the students must possess and that support the new subject.
- Check if the students have the knowledge, abilities and skills to deal with the new content.
- To reactivate the necessary knowledge, abilities and skills that the students do not possess.

At what point are the necessary previous conditions of a new content ensured?

In the class, in the previous class, in the system or systems of previous classes.

The motivation of a learner towards a learning action is, on the one hand, to produce an internal contradiction between the subjective possibilities that are expressed in the achieved level of knowledge,

power and objective needs that are expressed in higher demands, which are not fulfilled first, it is on the other hand the awakening of the desire to overcome, to resolve this contradiction by assimilating more knowledge and developing more capacities and skills.

Implicit in the motivation must be the need to learn something new, the usefulness of this new knowledge and power, the ease with which it can be applied in new situations.

Proceeding of the teacher to achieve success in the planning of motivation:

- Reflection on the objective that is proposed to be fulfilled in the new task.
- Determination of the point of contact between what is known and what is unknown to the student.
- Evaluation of the possibility of motivation according to:
 - Age of the student
 - Individual characteristics of the group
 - Assured preconditions
- Determination of the possibility of motivation to be applied
- Determination of actions that manage to create the contradiction
- Presentation of sufficient exercises that can be solved by the learner
- Presentation of examples or exercises that contemplate the new task to be accomplished

The orientation towards the objective is closely related to motivation, hence both are aimed at preparing the learner for the assimilation of the new content.

The objectives can be raised:

- By means of a guiding conversation
- By means of the statement of objectives
- By means of an exercise or a problem

Proceeding of the teacher for the orientation of the objective successfully

- Understanding the content of the program objectives
- Identification of the pathway by which the objectives are to be achieved
- Accuracy of language that is within the reach of the learner's understanding

For target orientation it is necessary to:

- Not to use any term incomprehensible to the learner
- Do not anticipate the knowledge to be obtained by the student, since it does not activate it sufficiently.

It favors the assimilation of the knowledge of the subject or contents object of study (the new subject) as regards new knowledge and skills that the student must acquire, we could say where the new knowledge and power are acquired.

What is knowledge?

It is the acquisition of sure and exact knowledge about concepts, definitions, propositions, relations between properties, laws, about objects, constructions, procedures, solution of equations and inequalities, formulas, etc.

What is power?

It is the acquisition of secure skills and the development of abilities to apply their knowledge and skills in the solution of exercises and problems.

Essential aspects of the teacher's approach to successful work in the new subject matter

- Concrete facts and phenomena must be clearly understood in order to develop clear mental representations in the pupils.
- The acquired mental representations have to be elaborated logically; the pupil has to penetrate into relations and laws. With these they form concepts, judgments and theoretical conclusions.
- Knowledge and practice are interrelated, thus developing the ability to apply knowledge and power in practice.

Ways for the transmission of knowledge

- By direct observation of objects of objective reality, as well as their realistic representations.
- Through the understanding of systematic forms of representation.
- Through the analysis of verbal representations of the teacher.

It is important that the students actively and consciously participate in the elaboration of the new subject matter. This is possible through good goal orientation and motivation.

Let us then look at the work with the new material:

One works with the content that has just been taught, using forms of work that ensure the use of such knowledge in a gradual way, being able to measure the mastery of the content. To this didactic function corresponds fixation, control and evaluation.

Fixation: It is the superior concept of the following special forms: exercise, deepening, application, systematization and review.

Control: It is everything that provides information to the teacher and the student about the results of the teaching.

The control has a double function

- It provides the teacher with information about the successes and failures of his teaching work.
- The result of the control makes the students see what level they have reached in relation to the objectives to be achieved.

The systematic and planned monitoring of performance must cover all stages of the class: it allows knowing the progress of the teaching process, to discover the difficulties that arise and to take timely measures aimed at their eradication. It is also a guiding and educational element.

Evaluation: It is the instrument that allows, on the one hand, to establish at different moments of the process, the quality with which the objectives are being fulfilled within the subjects and, on the other hand, and depending on the results, to determine the corrections that need to be introduced to bring the results closer and closer to the requirements of the objectives.

Evaluation fulfils a set of functions that constitute fundamental premises for its best application in the teaching process: instructive, educational, diagnostic, developmental and control.

Conclusions

The developed study shows the multiple possibilities offered by the application of the interdisciplinary communicative approach in favor of a more precise attention to the use of the mother tongue in classes, on the part of the teachers who make up the pedagogical group, all of which allows the fulfilment of the stated methodological conceptual problem and the proposed objective. The linking of interdisciplinary nodes, the treatment of communicative skills, the use of productive methods, as well as the variety of activities to be used in the teaching-learning process, allow a better performance of the primary teachers in the process, and a differentiated attention in the use of the mother tongue by the students in the different contexts. Conceiving communicative interdisciplinarity as a function of the work with the subject taught constitutes an act of culture, a basic principle for the process in the current conditions of

the Cuban school, whose essence lies in its educational, formative and transforming character, in the conviction and formation of modes of professional performance.

Referencias Bibliográficas

- Addine, F. (1998). *Didáctica y optimización del proceso de enseñanza*. ISP "Enrique José Varona".
- Álvarez de Zayas, C. (2007). *Didáctica. La escuela en la vida*. Pueblo y Educación.
- Álvarez, P. M. (2007). *Interdisciplinariedad. Una aproximación desde la enseñanza-aprendizaje de las ciencias*. Pueblo y Educación.
- Barrera, J. L. (2010). *Manual de interdisciplinariedad comunicativa*. En soporte digital.
- Caballero D. (2003). *Didáctica de la escuela primaria. Selección de lecturas. Compilación*. Pueblo y Educación.
- Campistrous, P. L. (2022). *Sobre la estructura didáctica y metodológica de las clases*. En soporte digital.
- Fiallo, R. J. (2001). *La interdisciplinariedad en el currículo: ¿utopía o realidad educativa?* En soporte digital.
- Horruitiner, S. P. (2009). *La Universidad Latinoamericana en la época actual; tendencias, retos y propuestas innovadoras* (Curso 23). Congreso Internacional Pedagogía 2009. La Habana, Cuba. En soporte digital.
- Klineberg, L. (1972). *Introducción a la Didáctica General*. Pueblo y Educación.
- Labarrere, R. G. y Valdivia, G. E. P. (1988). *Pedagogía*. Pueblo y Educación.
- Mercaderes, M. de los A. (2006). *Las formas de organización de la docencia*. En soporte digital.
- Ministerio de Educación. (2002). *Seminario Nacional para Educadores*. (Tabloide) Tema IV. Pueblo y Educación.
- Rico, M. P. (2000). *Hacia el perfeccionamiento de la escuela primaria*. Pueblo y Educación.
- Rico, M. P. (2011). *El Modelo de Escuela Primaria Cubana. Una propuesta de Enseñanza Desarrolladora*. En soporte digital.
- Roméu, E. A. (2007). *El enfoque cognitivo, comunicativo y sociocultural en la enseñanza de la lengua*. Pueblo y Educación.
- UNESCO. (2021). *Reunión Global sobre educación. Inversión en educación: una movilización mundial para la recuperación del COVID-19 y los futuros de la educación*. <https://en.unesco.org/sites/default/files/global-education-meeting-hl-2021-cn-es.pdf>