
MENDIVE

REVISTA DE EDUCACIÓN

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The primary teacher interdisciplinary formation from the Agricultural Education in the Current Cuban School

La formación interdisciplinaria del maestro primario desde la Educación Agropecuaria en la Escuela Cubana Actual

Formação interdisciplinar do docente do ensino primário da Educação Agrícola na Escola Cubana de Hoje

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ABSTRACT

The new transformations that have taken place in the Cuban educational system, because of their continuous improvement, specifically in the primary teacher's formation, make it necessary the search of new ways that contribute to their interdisciplinary formation. The contents of the program of the subject The

Agricultural Education in the Current Cuban School that is taught in the Pedagogic School "Tania la Guerillera", offer the possibility to establish interdisciplinary relationships with other subjects of the curriculum and in this way to contribute to the Environmental Education for the Sustainable Development of the students. The present article has as objective basis the interdisciplinary in the primary teacher's formation in the process of teaching learning of The Agricultural Education in the Current Cuban School. For this, a bibliographical review of Investigators works that have approached the thematic was carried out. The theoretical methods prevailed (the historical one, the logical one, the analysis, the synthesis, the induction, and the deduction, the hypothetical-deductive one). Because of the study, the theoretical and methodological referents that sustain the interdisciplinary in the primary teacher s formation were determined. The primary teacher s interdisciplinary formation from The Agricultural Education in the Current Cuban School allows the construction of knowledge integrated on the part of the students and the formation in them in an interdisciplinary pedagogic way of professional performance in correspondence with the environmental necessities in the different educational scenarios, where besides the recognition of the environmental problems the solution of these is achieved from the school.

Key words: Agricultural education; Interdisciplinary and Sustainable Development.

RESUMEN

Las nuevas transformaciones que han tenido lugar en el sistema educativo cubano, como resultado de su continuo perfeccionamiento, específicamente en la

formación del maestro primario, hacen necesaria la búsqueda de nuevas vías que contribuyan a su formación interdisciplinaria. Los contenidos del programa de la asignatura La Educación Agropecuaria en la Escuela Cubana Actual que se imparte en la Escuela Pedagógica "Tania la Guerrillera" brindan la posibilidad de establecer relaciones interdisciplinarias con otras asignaturas del currículo y así contribuir a la educación ambiental para el Desarrollo Sostenible de los estudiantes. El presente artículo tiene como objetivo fundamentar la interdisciplinariedad en la formación del maestro primario en el proceso de enseñanza-aprendizaje de La Educación Agropecuaria en la Escuela Cubana Actual. Para ello se realizó una revisión bibliográfica de trabajos de investigadores que han abordado la temática. Prevalcieron los métodos teóricos (el histórico y el lógico, el análisis y la síntesis, la inducción y la deducción, el hipotético-deductivo). Como resultado del estudio realizado se determinaron los referentes teóricos y metodológicos que sustentan la interdisciplinariedad en la formación del maestro primario. La formación interdisciplinaria del maestro primario desde La Educación Agropecuaria en la Escuela Cubana Actual permite la construcción de saberes integrados por parte de los estudiantes y la formación en ellos de un modo de actuación profesional pedagógico interdisciplinario, en correspondencia con las necesidades ambientales en los diferentes escenarios educativos, donde además del reconocimiento de los problemas agroambientales se logre la solución de estos desde la escuela.

Palabras clave: Desarrollo Sostenible; Educación Agropecuaria e Interdisciplinariedad.

RESUMO

As novas transformações ocorridas no sistema educativo cubano, como resultado da sua melhoria contínua, especificamente na formação de professores primários, tornam necessária a procura de novas formas de contribuir para a sua formação interdisciplinar. O conteúdo da disciplina Educação Agrícola na Escola Cubana de Hoje que é ministrada na Escola Pedagógica "Tania la Guerrillera" oferece a possibilidade de estabelecer relações interdisciplinares com outras disciplinas do currículo e assim contribuir à educação ambiental para o desenvolvimento sustentável dos alunos. O presente artigo visa fundamentar o carácter interdisciplinar na formação de professores primários no processo ensino-aprendizagem da Educação Agrícola na Escola Cubana de Hoje. Para tanto, foi realizada uma revisão bibliográfica sobre o trabalho dos pesquisadores que lidaram com o assunto. Os métodos teóricos prevaleceram (histórico e lógico, análise e síntese, indução e dedução, hipotético-dedutivo). Como resultado do estudo realizado, foram determinadas as referências teóricas e metodológicas que suportam a interdisciplinaridade na formação de professores do ensino primário. A formação interdisciplinar dos professores da escola primária de La Educación Agropecuaria en la Escuela Cubana Actual permite a construção de conhecimentos integrados pelos alunos e a formação dos mesmos num desempenho pedagógico profissional interdisciplinar, em correspondência com as necessidades ambientais nos diferentes cenários educativos, onde além do reconhecimento dos problemas agro-ambientais, a solução destes problemas é alcançada a partir da escola.

Palavras-chave: Desenvolvimento Sustentável; Educação Agrícola e Interdisciplinaridade.

INTRODUCTION

Interdisciplinary is a necessity in today's world given the complex nature of reality that imply a multidimensional approach, been a compulsory subject in the educational community at national and international level for several decades ago, not only from the theoretical point of view, but also in pedagogical practice. Different researchers have addressed this issue in the educational field, among them Álvarez Pérez (2004); Fernández Pérez (2004); Perera Cumerma (2009); Fiallo (2012); Jiménez and González (2013); López Méndez (2015); Gurrola Togasi (2016); González Pérez & Varela Calvo (2016); Briso González, Asín Cala & Hernández Louhau (2017); Corbacho (2017); Pérez Maya, Cruz Chong Barreiro & Lara Díaz (2017); Segovia Palma, Pinos Robalino & Murillo Sevillano (2017); Rubio Vargas, Abreu Payrol, Cabrera Hernández & Cardoso Zambrana (2018); Espinoza Freire (2018); Serrano Vargas, Salazar Montero & Quesada Izquierdo (2018); Regueiferos Gutiérrez & Medina Samé (2019), among others.

In his works important contributions are appreciated mainly of theoretical nature, because the tracks are based to ensure their presence within the curriculum, features, modes of action and organizational forms common in teaching - learning science, as a way to increase the quality of education. However, little work has been done on how to prepare teachers to contribute to eradicate existing inadequacies and form a professional mode of action that ensures the practice of interdisciplinary.

There is no unity of criteria among these researchers regarding the concept of

interdisciplinary. Jiménez Sánchez & González Castillo (2013) suggest that it is conceived as a principle, work methodology, way of organizing the activity, methodological invariance by some, and as a way of thinking and proceeding or didactic condition by others; criteria shared by the authors as consulted in the investigations. López Méndez (2015) considers that, in the conceptual order, many professors confuse the term integration and interdisciplinary relationships with that of interdisciplinary.

In addition to the lack of unity with respect to the concept of interdisciplinarity among researchers, there are also different criteria on the ways to implement it in pedagogical practice. According to Espinoza Freire (2018):

"Interdisciplinary can be seen as a pedagogical strategy that involves the interaction of several disciplines, understood as dialogue and collaboration and these to achieve the goal of a new knowledge" (p.4).

Interdisciplinary has also been recognized as a theoretical and methodological foundation for the training of education professionals in Cuba (Fiallo Rodríguez, 2012; Jiménez Sánchez & González Castillo, 2013; López Méndez, 2015; Cabezas Salmon, 2015; Rodríguez Díaz, Herrera Rojas & Valdés González, 2018). However, Álvarez Pérez (2004) believes that there are still difficulties in the theoretical pedagogical preparation of teachers to engulf interdisciplinary in the teaching-learning process.

Cuba, with several difficulties and contradictions that affect all spheres of social life, as a result of the economic, commercial and financial blockade imposed by the United States of America and that lasts more than 59 years, today needs more than ever to educate to the new generations in a scientific conception of the world, in accordance with the most advanced teaching of contemporary sciences and with the best traditions of history and national culture; above all, that it responds to the demands of Cuban society in the current historical-social context. To work interdisciplinary in the teaching-learning educations is paramount to achieve the above.

From the 2010-2011 course training of primary teachers in pedagogical schools from all provinces of the country restart, in response to the need of the professionals in this level of education and as a way of continuity of study for graduates of ninth grade, with the possibility of enrolling the career in the universities the blended format. In the professional model it is proposed that the graduate of this course should be characterized as a revolutionary, Martian and faithful professional, committed to the principles of the Revolution and Cuban educational policy; with a deep humanist sense, professional identity and responsibility, and that manifests addition, responsible behavior in protecting environment, energy saving and nutrition education.

It is necessary to specify that the training of the primary teacher would not be effective without an interdisciplinary teaching-learning process, since, if a correct articulation of the contents is not made where the links between the phenomena and processes that are object of study are revealed, The formation of a more comprehensive view of the world in students, as well as their ethical

application in society, is not facilitated. According to researchers as Fiallo Rodriguez (2012), Lopez Mendez (2015), Barrios Silva & Lopez Menéndez (2017), among others, interdisciplinary has become a basic aspect of human activity. This implies the formation of a new type of primary teacher, capable of undertaking the necessary transformations that education requires.

Currently, one of the priorities of the national education system emphasizes on attention to job training and to the development of the mentality of producing students of all educations, in response to present and future needs of our country. Santos Abreu *et al.* (2017) consider that it is essential to train new generations from a conception of sustainable development, far from productive obsolete models that have been copied for years and threatening the survival of the planet. From this guiding idea, it is necessary that from the initial training of primary teachers be taught the model of sustainable agriculture that aspires for the highest direction of the country, the only way to meet current needs, without compromising future.

For the aforementioned reasons, in the 2011- 2012 school year, in the training of primary teachers the subject The Agricultural Education at the currently Cuban School was introduced, as part of the development of Environmental Education for Sustainable Development in the National Education System, to contribute to the education of current and future generations in the love of the earth, to identify the environmental problems that exist in the school and in the community, and so that they can develop sustainable agricultural practices.

As a result of the theoretical study of different sources, while several researchers in Cuba have addressed the

issue of interdisciplinary in the training of education professionals primary such as Cabezas Salmon (2015); Llano Arana et al. (2016); Cepeda Rodríguez, Díaz Quintanilla & Acosta Gómez (2017); Rodríguez Díaz, et al. (2018); Pérez Castillo, Gradaille Martín & Peraza Vilorio (2018), among others, no studies were identified that would contribute to concrete proposals for the implementation of interdisciplinary in the training of the primary teacher from the Agricultural Education in the Current Cuban School.

This article aims to support the interdisciplinary training of primary teacher in the teaching-learning process from the Agricultural Education in Cuban School.

DEVELOPMENT

The interdisciplinary in the formation of the Primary teacher in pedagogical schools

In the 2010-2011 school year, pedagogical schools are reopened with the objective of training the teachers and educators needed in each territory of the country to continue improving the teaching-educational process, as an essential way to ensure compliance with the Guidelines of the Economic and Social Policy of the party and the Revolution approved in the VI Congress of the PCC, referring to the elevation of quality and rigor in the training and improvement of teachers.

At that time, the head of Mined Ena Elsa Velázquez Cobiella (2010), stated:

"It is a priority for the national education system of our country the adequate training and preparation of educators at all levels of education, devote attention to this issue, dialogue and offering our points of view will support the quality of the debate and the updating of the state of the preparation that educators receive" (p. 4).

In addition, she said: "The teacher is a fan of knowledge, that in his class he must have interdisciplinary. Being able to talk with the student about different topics, from their perspective, from their perspective" (Velázquez Cobiella, 2010. P. 8).

Bonilla Vichot, Breijo Worosz & Cruz Ordaz (2017) say, "Due to the role of the primary teacher in society, the preparation required developing work in the school and community must be achieved. It cannot be forgotten that the primary teacher must have knowledge in the various sciences that he will teach in the different grades of Primary Education; He is the teacher who teaches the first letters" (p.8).

The teacher, in practice, must be in permanent contact with the real problems of the school and the community and those that arise in the teaching - learning process of the classroom. Treating this problem promotes the establishment of interdisciplinary relations in all the subjects of the curriculum of any career, as evidence links between different disciplines and reflects a real understanding of the scientific world; shows how phenomena do not exist separately and when interrelating them by means of the content the interaction and

development box is drawn (Rodríguez Díaz *et to the.*, 2018).

One way to implement the above is from working with nodes of interdisciplinary articulation, as they determine the contents that will be working for all teachers to solve the difficulties of the students (Rodríguez Díaz *et al.*, 2018). The teacher must know that the transverse axis, the project method, the inter object, articulation nodes, director programs are ways to achieve interdisciplinary.

To this we must take into account the joint interdisciplinary nodes, which have been studied by several authors Cuba we as Caballero (2001), Álvarez Pérez (2004), Fiallo Rodríguez (2012), among others. It is noteworthy that the vast majority of these studies have been contextualized in the sciences. Álvarez Pérez (2004) expresses that the nodes can be cognitive and main. The first assumes that they are "a point of accumulation of knowledge (concepts, prepositions, laws, principles, theories, models) around concept or a skill". The latter defines them as "those who are distinguished by their cultural relevance or their applications to social practice" (p.28).

This practice is conditioned by the curriculum, which should be based on its criteria determining relevant issues to respond to social needs and general training objectives. It is considered it is important to plan tasks that allow activation of the nodes, both potential as principal. Besides, the needs of teachers to be well trained in their discipline and feel interested in carrying out interdisciplinary (Pérez Álvarez, 2004).

Caballero (2001) agrees that interdisciplinary nodes are the

grouping of such content in which elements of this corresponding to different disciplines converged.

Fiallo Rodríguez (2012), considered a very effective way to achieve the interdisciplinary, together with the analysis of the elements of knowledge. Then, nodes articulation inter disciplinary used must be determined from a collective effort between teachers, which are clear the potential of each of the subjects to achieve a good interdisciplinary work.

The authors of this work suggest the path of potential joint nodes for continuous and systematic improvement of the curriculum, which involves and engages its fundamental actors and significantly improve the curriculum The teacher must know that the nodes arising from the previous thematic structure of each of the subjects and all the discipline as a whole, which relies on the previous structuring of its content.

According Fiallo Rodríguez (2012), "(. . .) Continues to be a need to carry out scientific research to propose how to establish interdisciplinary relationships between the contents of all disciplines that make any curriculum, to bring in students holistic understanding of the processes and phenomena that occur in objective reality (p.27) .

Cabezas Salmon (2015) states that the topics discussed in the different educations show inadequacies in the incursion, by researchers, of interdisciplinary work in the initial training of the primary teacher. The subject of primary teacher training has become a very important aspect of contemporary research, as there is a social interest in preparing teachers with an increasingly diverse

horizon, and at the same time endowed with an integrative conception that allows them to assume an interdisciplinary pedagogical performance in the direction of the teaching - learning process.

The training and improvement of the performance of the primary teacher in pedagogical schools and their articulations with interdisciplinary, such as the integration of knowledge demanded by the current society and the problems, both socio-cultural and professional that the current professional faces, needs to approach it from the interdisciplinary point of view. The authors of this paper aim to the need for profound transformations of the teacher to allow the student will be placed in the problems of their profession and understand the links linking seemingly unrelated phenomena.

The interdisciplinary in the teaching process comprises the following essential features:

- Mastery of the subject of each teacher.
- Teacher motivation in the need and advantages of the interdisciplinary approach. Performing an efficient methodological work of teachers.
- Existence of programs that condition and / or facilitate the interdisciplinary approach to teaching.
- Knowledge by teachers of the objects of study, methods, objectives of related disciplines.
- Definition of integrated teaching problems. Interest of the institution for the application of these approaches.

Another condition that is considered an important is the sense of cooperation and responsibility that should govern the

group of teachers. They should overcome the suspicion that other teachers use their own teaching components and explore the possibilities of their own subject or discipline program. It is within the group of the year where the methodological work that prepares the conditions is coordinated and guidelines are established in the development of interdisciplinary strategies. It is the group that decides where to direct the interdisciplinary process based on the needs and particularities of the year, human rights, environment, health, labor and others.

Teaching to which we aspire in the following 30 years would be a professional perceiving his role as provocative and facilitator of learning and take over its mission, not in terms of teaching, but rather to ensure that their students learn, which not only has the ability to interpret and apply curriculum, but to recreate and build it himself, prepared to identify the variety of educational options and content to be presented in order to choose the most appropriate to each circumstance, the particularities of his group or students and the topic discussed.

That teacher is able to cooperatively develop an educational project and a pedagogical project for his school: he knows how to search and select information; He identifies the basic learning needs of his students and turns them into a curriculum for teaching; he knows how to organize group work among his students and participate and cooperate himself in group work with his colleagues and has the ability to reflect critically and collectively about his role and about his practice.

There is no doubt that primary teachers play a decisive role in sowing a general and integral culture and for that, efficiently

trained teachers are needed; which is acquired through methodological preparation, as one of the most frequent ways to obtain, systematize and apply the knowledge, skills and abilities necessary to meet the demands and needs in their daily work, so they has to be profound, Conscious and systematic from their job.

Agricultural Education at the Current Cuban School

The geographical, economic and social condition of Cuba demands a constant look at the countryside as a space for multiple uses, essential for Cuban society, and with an interest in producing the necessary food for life. Cuba is an underdeveloped and eminently agricultural country, a reality that cannot be forgotten if it is intended to develop that agriculture that is wanted to guarantee agricultural production as part of national security. In this regard, as Santos said (2017 p.2), the President of the State Councils and General Ministers of the Army Raúl Castro Ruz, said: "Without a strong and efficient agriculture we can develop with the resources we have available no dream of the large allocations of time, we cannot aspire to power and raise the population still it depends both imported products that can be grown in Cuba".

Historically, the land represents a very important source of resources for the Cuban family and people through its exploitation for different purposes to improve the lifestyle of human beings; However, this situation has been reversed, since the lands are not used enough and in the appropriate manner to meet the needs of all due to the irresponsibility of all the people involved.

Education, in this sense, represents a priority for any underdeveloped third world country, even when other factors

are involved in solving this problem. The school centers of all educations can contribute to reversing this reality if they manage to incorporate in an authentic, organic and systematic way an education that assumes rural areas as part of the Cuban culture, in all its manifestations and expressions of Cubanness. For this, a teacher prepared, able to assess more original traditions of the culture of Cuba fields and incorporate them into the process of teaching and learning is needed.

As part of the training of students in the curriculum of different careers, specifically of Bachelor of Education from all specialties and Primary Teacher Training, Special and Educating Preschool high school level in pedagogical schools, it has been Incorporated the subject Agricultural Education in the Current Cuban School, belonging to the program Improving Environmental Education for Sustainable Development in the National Education System.

The general objective of the program is to direct the teaching - educational process from an environmental education perspective for sustainable development, as a contribution to sustainable land management, which allows the formation of a culture of rurality as an expression of Cubanness, manifested in his pedagogical professionalism.

The Agrarian education in the training of education professionals, specifically those formed in the pedagogical Schools and Pedagogical faculties of universities all over the country, is one of the ways to develop the mindset of producers of the future Cuban teachers and thus contribute to the education of current and future generations in the love of the earth. The contents of the subject prepare future teachers so that they can identify the

environmental problems that exist in the school, in the community and then develop sustainable agricultural practices. Other aspirations of the subject is that the school becomes an agricultural Extensionists, to help the producer in improving the living conditions of all people , and thus contribute to food production and sustainable development.

The immediate background of this subject for the training of primary and preschool teachers can be located in the disciplines of Nature Studies or the subject The School Garden and the work with the Area of Nature in preschool education, taught in the Schools Trainers of the previous stage. These programs allowed future teachers to acquire knowledge and skills that they later incorporate into their work in the classroom ; However , this knowledge needs updating and contextualization in the face of the challenges imposed by the contemporary world and the demands of humanity on educational systems.

For the development of this subject it is necessary to take into account that it is not intended to train a technical staff for agriculture, but to provide the future primary and preschool teacher with the elementary knowledge that will allow them to foster a culture of rural areas in children as an expression of the cubanness; In addition to contributing to the rescue of peasant traditions and the formation of an awareness of producers, from the perspective of Environmental Education for Sustainable Development.

The proposed program has the flexibility to adapt to the conditions in each territory and does not require, to be taught, additional material resources, only those who are at the reach of teachers and the school environment. The development of the subject was based on primarily on practical activities as required in each

subject, but can also use the class, conference, integrative seminar, workshop, among others.

Some of the contents of the program have been developed in a basic teaching support material because the bibliography for their treatment is much dispersed; however, teachers who will teach the subject can use the bibliography recommended for each topic. It also includes a popular peasant proverb, which can be used by teachers to develop a culture of rural areas in each topic, a glossary of terms that support the subject and an article by Samuel Feijóo about the Cuban rural school in the pre-revolutionary stage.

The means of teaching to be used must fundamentally be the real objects available in the environment of the training center (plants, animals, agricultural implements, soil samples, herbariums), depending on the subject to be treated. Before beginning the development of the subject, it is necessary to assess the means and possibilities available to adapt the contents to these conditions, depending on the environment where the teacher training school is located.

The treatment of the contents of the program must also be linked to the promotion and care of the Martian Forests and Gardens of each school institution as a priority of the Cuban school and the study of the José Martí Pedagogical Ideology. Cooperation agreements can be established with producing companies, research institutions, agricultural polytechnics, faculty of agricultural sciences, production cooperatives, integral farms, agro-ecological farms, reference fields, organoponics, intensive orchards and other forms of agricultural production.

The realization of practical evaluation activities of a systematic nature are evaluative proposals to be developed, together with practical works, integrative tasks and others that under this principle the teacher considers appropriate in an interdisciplinary way with the other subjects of the curriculum; all with professional pedagogical approach that allows him to appropriate the algorithms to work with scholars .

In the training of education professionals, the program of the subject Agricultural Education in the Current Cuban School is a valuable tool in the training of students in the educational sector, because the topics addressed are of great interest, provide teachers and students of theoretic elements and essentially practical and allow to develop in students a mentality of producers, as well as strengthening conservation values with respect to the environment, contributing to environmental education for sustainable development in rural areas, urban and suburban where schools are located and, in the same way, guarantee the food security that the country requires so much.

The interdisciplinary training of the primary teacher from the Agricultural Education in the current Cuban School in the pedagogical schools

Because of its exceptional natural conditions, our country has been, is and will be essentially agricultural. However, it is considered that in a country like ours, which depends largely on its food for what we produce, agricultural knowledge cannot be understood only as exclusive to those who are dedicated to this work, like workers, peasants, technicians, engineers and researchers. Guided by the Martian thought in people living almost entirely of

products of the field should prepare men for peasant life, that is, master the knowledge, skills and basic technologies that allow leverage to the maximum a small plot, a family yard or any area that belongs to it that can be dedicated to food production.

With this intention, a text entitled "Agricultural Education in the Current Cuban School" has already been published as part of the scientific results of the Branch Program 11: "Environmental Education for Sustainable Development from the school institution", of the direction of Science and technology of the Mined primarily oriented to job training and a development of the mentality of producers of Cuban teachers to contribute to the education of current and future generations in the love of the land. The demands of the current Cuban school are given in the quality of an integrated educational process and developer, the representing encourage, rather than its structural components, their interrelationships, answering eminently theoretical needs and problems of the Pedagogical sciences. In this sense, coherence must be manifested concerning Agricultural Education from the perspective of Environmental Education for Sustainable Development, an issue that requires solutions that are not reached immediately and strictly by empirical-experimental methods, but by means of explanatory strategies that allow the theoretical-conceptual systematization of antecedents, contents and foundations from more integrative perspectives.

It is important to make an approach to some basic aspects that, in the theoretical-methodological order must be in the domain of educators to promote an agricultural education from the current Cuban school. In correspondence with the above, it is necessary that agricultural

education be based on the foundations of agro ecological development. The characteristics of the educational process that is developed in the current Cuban school allows the promotion of agricultural education, to which, it must consider the main organizational aspects of school such as:

- The planning system, collectively and individually (annual and monthly)
- The educational Project
- The methodological work
- The strategy of environmental education
- The strategy for job training.

It is important to emphasize that , under the current conditions of Agricultural Education, it must be distinguished by taxing sustainable agriculture; that is to say, an agriculture that is economically viable, that favors the efficient use of the resources and the integral training, and ecologically sustainable, promoting the production and the use of the organic fertilizers, socially just; aspects declaring on the lineament 187 and 200 related with the agro industrial Policy approved at the Sixth Congress of the Communist Party of Cuba. (Partido Comunista de Cuba, 2011).

All this effort must be reversed in obtaining a new way of thinking and acting, with respect to agriculture, from school institutions in our country, where Agricultural Education is part of Environmental Education for Sustainable Development. According to Rodríguez Macías, López Sánchez & García Marrero (2016):

In this sense, the training of students must be implicit in the management of biological diversity, the realization of practices

related to food production and land conservation, the problem of food security and sovereignty, so that students can get involved and become protagonists.

The Agricultural Education, oriented to the agro sustainable development as environmental educational reality must consider what, how, when, why and wherefore of the educational process. It is necessary to attend to the awareness of the subjects in the identification of agro-environmental problems, which allows them to create forms, means and ways for their solution or minimization, within the framework of the construction of new social relations, new forms of man's thinking based on the relationships established between the development of agricultural work and the conception of Environmental Education for Sustainable Development ; This reaches its greatest realization from the dialectical integration between the following guiding ideas:

- The unity between instruction and education.
- The linking of education with the life
- The social environment and work
- The incorporation of agro-environmental content as a complex methodological process
- The interdisciplinary richness as a didactic principle
- The contextualized and complex character of agricultural education from school as an educational scenario.

The indissoluble unity between the educational and instructive aspects is conceived as the guiding idea that presides over said process, and as such becomes the main guiding thread in it. Understanding the link between the two dimensions leads directly to organize the process so it necessary, first, to identify

the presence of these elements in their content and, in consequence thereby develop the educational process so that this approach is present in each component of it. In essence, it is about transforming the process traditionally focused on cognitive aspects, achieving its dialectical integration with those of a meaningful, conscious nature of social commitment.

The formation of the primary teacher and all its technical and cultural preparation is a task of the different subjects that make up the curriculum of each career; you ensure its quality and his interdisciplinary performance becomes a main objective to meet the demands of our society. Interdisciplinary must constitute a basic idea for Agricultural Education from the Current Cuban School, based on its educational, formative and transformative nature of this education.

Its essence, as a didactic principle for Agricultural Education from school, is a guide in the integration of the basic contents for agro-sustainable development in the subjects that integrate the different curricula of the career, from enriching its conceptual framework, its procedures, as well as its teaching and research methodology and requires as essential elements:

- A comprehensive analysis of agricultural education as a formative problem, as well as the theoretical and practical assumptions that support them scientifically.
- The preparation of each teacher in relation to the content system of the subject, the particularities of the education in which he performs, as well as the content system that determines Agricultural Education.

- The cooperated work of the teachers of the different subjects that allows them to project educational actions in function of the Agricultural Education.
- The continuous evaluation for its improvement.
- The contextualized and complex nature of Agricultural Education from the school as an educational setting.

Objectively, this basic idea has been organized based on the need to take into account the contextual and the complex as categories that are present in any environmental educational process. Contextualization refers to the whole set of natural, social and cultural conditions with which man interacts in the framework of his development; while the complex element is determined by addressing Agricultural Education from a theoretical-practical point of view, with a conceptual, ethical, economic, political, ecological, historical and pedagogical approach in a complementary way, which gives rise to scientific knowledge and practices community in solution to agro-environmental problems, where knowledge is merged, values are projected and knowledge is internalized.

In this regard an important educational idea, interdependence, and considering it is evident that every action that takes place on the basis of agricultural education, from the perspective of the Sustainable Development, allow the students to understand that environmental systems are sets in which everything is connected intra systematically; so that, we can differentiate their parts to effect study, which simply means the simplification of a complex reality, which treats both link and distinguish, but without disengaging. This idea allows to

organize the process of Agricultural Education as part of the educational work of the school, based on interdisciplinary, in the construction of the necessary knowledge, which allows a mode of social action, in correspondence with the environmental needs in the different educational scenarios, where more than the recognition of agro-environmental problems, the projection of the solution or minimization from school is achieved.

Main organizational levels for the incorporation of Agricultural Education in the pedagogical process of the school

Educational organizational level

Different types of classes such as introductory, treatment of new content, deepening, consolidation, application, exercise.

Extra docent organizational level

Activities: circles of interest, scientific societies, individual attention and/or team competitions knowledge, competitions, activities in the school garden, activities in the areas of school, workshops, visits to environmental management units, among others.

Extracurricular organizational level

Activities: morning, evening, excursion, fieldwork, clubs, agricultural work, workshops, competitions, among others.

The main features that characterize the interdisciplinary incorporation of agricultural education as an educational action of the school are determined by:

- Correspondence with the policies of change in the economic, political and social order.

- Accurate diagnosis of the educational reality environment, from the integration of the pedagogical component and component partner socio environment.
- Correspondence with the paradigm of environmental development in the historical-social context.
- Application of differentiated strategies in correspondence with the socio- environmental characteristics of each educational scenario.

Interdisciplinary is shown when the knowledge systems of the disciplines are interpenetrated and, although it cannot be interpreted as a sum of disciplinary knowledge, it does not exist if it is not based on the internal logic of the disciplines themselves, in a dialectical relationship, that generates greater or macro-objective demands and that must be the new objectives of primary education. The main requirements for the interdisciplinary incorporation of Agricultural Education to the pedagogical process in the school are proposed:

- Contextualized diagnosis, both in the pedagogical and agro-environmental order
- Protagonist of students in learning activities
- Linking practice and theory.

To facilitate the identification of the internal logic of the disciplines, in a dialectical relationship, the elements of knowledge are important, thus understanding the portion of the information that has a logical sense, which the student must learn, characterized by its presentation in the form of concept, law, fact, method, process, skill, principle, etc, and whose amplitude is dependent on the personal components of the teaching-learning process.

The use of different methodological strategies where the realization of tall are, seminars, courses, among others , are included as part of the system of actions , makes it possible to exchange reflections on different contents oriented to the analysis of problematic situations. These should be studied from different perspectives and subjects, trying to generate an integrative vision of the theoretical, conceptual and methodological frameworks. They also enable a didactic approach that contemplates and favors interdisciplinary relationships.

The school of all educations can contribute to reversing this reality if it manages to incorporate, in an authentic, organic and systematic way, an education that assumes rurality as part of the Cuban culture, in all its manifestations and expressions of Cubanness; it needs a well prepared teacher, able to value the most original traditions of the culture of the Cuban fields and incorporate them into the process of teaching - learning develop.

It is considered as a possibility, to incorporate the teaching activities from initial training, contributing to the preparation of future primary teachers. This requires the selection of knowledge, which should act as a vehicle to develop the skills in students with the goal of promoting the formation of professionals of education, that can consider integrating knowledge, appropriate contents and problematic situations in different contexts; and working on activities that contemplate interdisciplinary, through problematic issues present in the environment, related to the study of biogeochemical cycles and their anthropic and natural alterations.

Through different methodological strategies seeks the teacher substantiate

the development of integrated curricula, educational activities and procedures in inter disciplinary evaluation and analyze the effects of innovations in science and technology on the environment, particularly about living organisms.

CONCLUSIONS

Achieving the interdisciplinary training of primary teachers is a way of thinking and proceeding from the disciplines themselves. Every primary teacher needs an interdisciplinary performance as part of his professional pedagogical way of acting. For the interdisciplinary training of primary teachers in training, it is necessary to take into account the different forms of methodological work that are developed in the pedagogical collective, from the relationship of the specific in the process of preparation of the disciplines and contents for the attention to the learning of each subject, the result of movement and transformation in the appropriation and integration of the contents by the subjects involved starts from the determination of the integrated interdisciplinary cognitive nodes up to the contextualization and solution of professional problems, the development of skills professionals as one of the essential suitable pathways for the efficient achievement of the interdisciplinary professional pedagogical mode of action, which are structured from theoretical and practical knowledge, which is appropriated by the primary teacher in training and finally, interdisciplinary training The primary teacher's education from Agricultural Education in the Current Cuban School allows the construction of integrated knowledge by the students and the training in them of an interdisciplinary pedagogical professional performance

mode in correspondence with the environmental needs in the different educational settings where, in addition to the recognition of agro-environmental problems, the solution of these from the school is achieved.

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