

MENDIVE

REVISTA DE EDUCACIÓN

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The treatment of environmental education in primary education

El tratamiento de la educación ambiental en la educación primaria

O tratamento da educação ambiental no ensino primário

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ABSTRACT

Environmental preservation has become a major issue on national and international stages. In Cuba, environmental education constitutes a transversal axis that passes through all the subjects of the school curriculum; however, there are difficulties in preparing teachers to take on the challenge that corresponds to them in their teaching. Hence, the

objective of this article is to propose a system of workshops for the treatment of environmental education aimed at the preparation of the teacher who graduated from the Bachelor of Primary Education career from the schools "Francisco Gómez Toro" and "José de la Luz y Caballero" from the Mantua municipality. To meet this objective, the historical-logical method, the system approach, analysis and synthesis and modeling were used from the theoretical point of view, while from the empirical point of view the survey, the interview, the documentary analysis were used, scientific observation and descriptive statistics. As a result, it is determined that in the context of professional performance of recently graduated primary teachers, there is a contradiction between the need for an adequate treatment of the basic environmental content in the education of schoolchildren and the insufficient preparation they possess. Therefore, it concludes with a proposal for a system of workshops, characterized by exchange, reflection, the exposition of experiences and experiences that are relevant and generalizable to other careers of the Municipal University Center of Mantua.

Keywords: environmental education; teacher preparation; workshop system.

RESUMEN

La preservación medioambiental se ha convertido en tema de primer orden en escenarios nacionales e internacionales. En Cuba, la educación ambiental constituye un eje transversal que pasa a través de todas las asignaturas del currículo escolar; sin embargo, existen dificultades en la preparación de los maestros para asumir el reto que les corresponde en su enseñanza. De ahí que el objetivo del presente artículo sea proponer un sistema de talleres para el tratamiento de la educación ambiental, dirigido a la preparación del docente egresado de la carrera Licenciatura en Educación Primaria de las escuelas

"Francisco Gómez Toro" y "José de la Luz y Caballero" del municipio Mantua. Para cumplir con dicho objetivo se emplearon, desde el punto de vista teórico, el método histórico-lógico, el enfoque de sistema, análisis y síntesis y la modelación, mientras que desde el punto de vista empírico se emplearon la encuesta, la entrevista, el análisis documental, la observación científica y la estadística descriptiva. Como resultado se determina que, en el contexto de actuación profesional de los maestros primarios recién graduados, se da la contradicción entre la necesidad de un adecuado tratamiento al contenido medioambiental básico en la educación de los escolares y la insuficiente preparación que poseen. Por lo que se concluye con la propuesta de un sistema de talleres, caracterizados por el intercambio, la reflexión, la exposición de vivencias y experiencias, que resulta pertinente y generalizable a otras carreras del Centro Universitario Municipal de Mantua.

Palabras clave: educación ambiental; preparación del docente; sistema de talleres.

RESUMO

A preservação ambiental tornou-se uma questão importante em cenários nacionais e internacionais. Em Cuba, a educação ambiental constitui um eixo transversal que percorre todas as disciplinas do currículo escolar; contudo, há dificuldades na preparação dos professores para assumirem o desafio que lhes corresponde no seu ensino. É por isso que o objetivo deste artigo é propor um sistema de jornadas de trabalho para o tratamento da educação ambiental, dirigidas à preparação do professor diplomado do curso de licenciatura em Ensino Primário das escolas "Francisco Gómez Toro" e "José de la Luz y Caballero" do município de Mantua. Para cumprir este objetivo, do ponto de vista teórico, foi utilizado o método histórico-lógico, a abordagem sistémica, a análise e síntese e a

modelação, enquanto do ponto de vista empírico, foram utilizados o inquérito, a entrevista, a análise documental, a observação científica e a estatística descritiva. Como resultado, é determinado que, no contexto do desempenho profissional dos professores do ensino primário recém-formados, existe uma contradição entre a necessidade de um tratamento adequado dos conteúdos ambientais básicos na educação das crianças em idade escolar e a preparação insuficiente que estas têm. Assim, conclui-se com a proposta de um sistema de workshops, caracterizado pelo intercâmbio, a reflexão, a exposição de experiências, que é pertinente e generalizável a outras carreiras do Centro Universitário Municipal de Mantua.

Palavras-chave: educação ambiental; preparação de professores; sistema de oficinas.

INTRODUCTION

The environmental education is an ongoing process, through which individuals and the community become aware of their environment and acquire the values, skills and willingness to solve current and future problems of the environment.

In Havana, the first Seminar on Environmental Education, sponsored by the Ministry of Education and Unesco, in May 1979, was an important step in the establishment of a strategy and plan of action for the development of environmental education through different channels and media that support the content that is taught through the classes.

It is a priority that teachers incorporate this issue into their daily work and that, fundamentally, each class, teaching or complementary

activity is manifested as an opportunity to be linked to action, based on the solution of environmental problems; through an active and participatory education, with valuable, useful and innovative proposals that serve for the progress of humanity and education in particular, who is responsible for providing the necessary synthesizing vision to understand and interpret the nature-society interaction, from the school-community relationship. This requires developing in children and adolescents a new way of seeing the environment, by educating them in the conceptual and the attitudinal, in order to contribute to the development of a positive environmental attitude, by solving environmental problems at the local scale.

The universities and, specifically, the powers that serve the training of professionals for education, become essential stage for orientation and development or of this process, which begins at the undergraduate level, where the teacher trainees acquire the main tools for professional performance. However, during the period of their initial training, not all the professional teaching-learning needs required for the profession are met ; it is necessary to complete their training or update them in those aspects that , due to the vertiginous development of science, could not be treated during the course of the career or that were not fully achieved.

In this regard, in the context of the performance of the primary teacher graduates, the contradiction is between the need for adequate treatment to the basic environmental content in educating schoolchildren and insufficient preparation they have to do it, having note that during the document review process and interviews, it is declared that no preparation actions directed at this issue are used, only the information channel.

Faced with this reality, the objective is determined: to propose a system of workshops for the treatment of environmental education, aimed at the preparation of the teacher who graduated from the Bachelor of Primary Education career from the schools "Francisco Gómez Toro" and "José de la Luz y Caballero "from the Mantua municipality.

In correspondence with the addressed above, the article deep in theoretical aspects of the workshop, as a form of preparation teaching, characterized by the exchange, reflection, exposure of experiences, where participants learn to make doing and where the socialization of knowledge, attitudes and their pedagogical professional performance are based on the preparation of the teacher who graduated from the Bachelor of Primary Education career, for the treatment of environmental education.

Teacher preparation

The teacher, more than a professional of pedagogy, constitutes a dynamic and creative actor who must not only have knowledge about a certain subject, but must also approach and deepen the psychic particularities of the student. These criteria require, therefore, a theoretical and methodology preparation that conforms to the psychological characteristics of students and, therefore, allows to give them effective and relevant care, to contribute adequately to the direction of the pedagogical process (Luis & Jiménez , 2019, p.2).

Education is currently in constant improvement, both in Cuba and in the rest of the world. Therefore, teachers need a systematic preparation, whether objective or subjective, which is consistent with all the advances and updates in the educational field.

Teacher preparation is an essential element for the development of knowledge, skills and competences within the framework of the profession, always in response to the needs of the members of a dynamic and changing society that echoes its time and its history.

The aforementioned constitutes a concern of some authors who have dealt with the issue of teacher preparation with the purpose of optimizing the educational process and raising its quality, among them: Añorga (1995), Castillo (2013), Companioni & Rodríguez (2017), among others. Therefore, in this article the terminology of preparation will be used.

In this sense, Companioni & Rodríguez (2017) express that the permanent preparation of teachers constitutes a conscious process that allows them to appropriate knowledge, capacities, skills and attitudes to develop strategies aimed at transmitting, explaining and clarifying ideas during the development of the pedagogical process, with the active participation of students (p.84).

Rodríguez (2018) conceives teacher preparation as "a permanent pedagogical process that allows the appropriation of theoretical and methodological knowledge that enable successful modes of action in their educational practice, which favor the learning of their students by facilitating the required aids and supports, by designing and developing learning projects that allow them to adapt the curriculum to the sociocultural context of the students, respecting the variability of their development, by discovering their own weaknesses, strengths and style of work in a timely manner" (p.3).

Castillo (2013) conceives it as a process of individual transformation for changing the school context in which it operates, as a result of the improvement and updating of the contents, methods of science and values, achieved in

interaction of the group and individually, together with the theoretical- practical experience of the teacher and the individual commitment assumed (p.29).

All these authors expose important elements for the preparation of the teacher, among which the permanent, systematic pedagogical process stands out, where various actions are carried out aimed at seeking superior modes of professional performance, taking into account the necessary organizational elements that favor comprehensive training of the students they serve, directly with the corresponding adaptations.

Adopting the workshop as a form of teacher preparation enables participants to acquire knowledge, develop skills and changes in the mode of action, for their better action in the organization of the educational process of primary school, with the use of the forms and methods that favor its development in educational centers, as an important part of its pedagogical activity in the development of organizational skills.

The workshop as a form of teacher preparation

The workshop "is a form of organization of the teaching-learning process that agrees with the problematizing and developing conception of education insofar as it tries to save the dichotomy that occurs between theory-practice; production-transmission of knowledge, Abilities-habits, research- teaching" (Mariño & Bao Pavon, 2007, p. 6) .

Añorga (1995) as defined as the form of professional development where collectively builds knowledge with a dynamic participatory methodology, consistent, tolerant of differences; where decisions and conclusions are made through collective mechanisms and

where common ideas are taken into account (p.34).

Meanwhile, Tamayo (2017) considers workshops as the way organizer of the process of teaching - learning, as a group learning experience; Its central objective is to learn in the group, from the group and for the group, it focuses the process on the students and the teacher is the coordinator of the activity, the activities are developed in a reflective framework in which achievements and discoveries are conceptualized, develops skills, habits and abilities, power creative activity, and is essential to the working time used for end the task of each workshop (p. 11).

The author considers the workshop, as a form of preparation, is a group learning experience that integrates the one that currently exists in vocational training and aims to focus the process on students, in its active work of solving professional tasks collectively, as happens in reality at the social level and in particular in educational processes.

These ideas have motivated an investigation about the training and professional development of the graduate, in the preparation for the treatment of environmental education in Primary Education teachers and, based on the information obtained by scientific methods, propose a system of workshops for the treatment of environmental education aimed at the preparation of the graduate of the Bachelor of Primary Education, which allows to improve the current state in that sense.

MATERIALS AND METHODS

The research was developed from an experimental design. Among the

theoretical methods, the following were used:

The historical- logical: used in the determination of the foundation and historical evolution of the teaching process of the graduate of the Bachelor of Primary Education for the treatment of environmental education.

The analysis and synthesis: facilitated the deepening of the bibliography and normative documents consulted, as well as the study of the information obtained from the application of instruments and techniques and to infer ideas about the current state of the teaching preparation of the graduate of the Bachelor's degree in Primary Education for the treatment of environmental education.

Induction and deduction: they were used to find regularities derived from the bibliographic review and the study of the preparation of teachers who have graduated from the Bachelor of Primary Education degree for the treatment of environmental education.

Modeling: to establish a close relationship and interdependence between the needs of preparation of teachers graduated from the Degree career in Primary Education for the treatment of environmental education and the proposal for the system of workshops.

The system approach: it is put into practice in the design of the workshops to determine the interdependence relationships between them in an orderly way, in order to satisfy the contradiction between the preparation needs of teachers who graduated from the Bachelor of Primary Education career for the treatment of environmental education in schools.

As methods of the empirical level were used:

The interview, to verify the information that the teachers graduates of the Bachelor career in Primary Education to provide treatment for environmental education at school.

Documentary analysis: for evaluate in the documents of the Ministry of Education the regulations that govern the preparation of teachers of Bachelor career in Elementary Education from the process of continuous training; A study of the normative documents was carried out in order to verify how the environmental training aspiration is conceived. In all the documents reviewed appear objectives and indications aimed at achieving a fully trained citizen who, above all things, establishes harmonious relationships with nature and society, which is manifested in his mode of action.

Scientific observation: in order to obtain information about the treatment given by teachers who graduated from the Bachelor of Primary Education career to the environmental dimension in directing the process they lead.

The survey: with the aim of verifying the level of participation of graduate teachers in activities to protect and improve the environment.

In addition, the experimentation method was used to obtain information, which allowed greater enrichment and reliability of the research. Descriptive statistics were also used to assess the results of the instruments and techniques applied.

RESULTS

With the application of methods and tools it was possible to obtain information related with the state of the problem stated, before introducing the proposed solution. The

initial state was made from the document analysis, pedagogical observation, survey, interview, experimentation and the use of descriptive statistics for the processing of data obtained in the investigative process.

In the first stage a study was developed to meet the needs of preparation of teachers graduates of the Degree career in Elementary Education from the year 2015-2016 to 201 in September -2020, for the treatment of environmental education. Instruments such as interview, survey, guide observation classes, analysis of documents were applied.

In this process it was found, initially, that 100 % of the graduates expressed love for the profession, children at this educational level, show interest in preparing and updated to become good teachers systematically plan their classes, recognize the need to protect the environment, are identified with the idea of intervening from the educational point of view in order to preserve the environment; in a general sense, they are responsible and industrious.

This stage allows the study of the main factors that in one way or another are associated with the preparation of these teachers on issues related to the environmental treatment of the pedagogical process.

In order to obtain the initial result of the study, instruments and techniques were applied that essentially allow us to arrive at the proposal.

83 % of respondents considered the issue of environmental education is utopian, because of the priority it is given to other curricular areas within of the model of elementary school ; 81 % of teachers, although they recognize the importance of their treatment at this level, state that they do not have the

necessary procedures for an adequate treatment of environmental education. Alternatively, 100 % of respondents consider to be subjected to actions from overcoming postgraduate prepares them to meet this demand.

Using the observation guide classes, 14 classes of different subjects were observed. Of these, 4 (28.5 %) pay attention to the adequate treatment of environmental education, starting from the projection of the objective, being located at a high level, and in the rest, 10 (71 %) are located at a low level, since the treatment of environmental education does not start from the projection of the objective.

It was also found that, of the 14 classes visited, only 4 (28.5 %) made a correct selection of the methods used in the direction of the process and in the remaining 10 (71.0 %) the selection is not correct. The use of teaching aids that would allow a better direction of learning was only observed in 5 classes, for a (35.7 %) in the other 9 they were not used; planned educational actions depending on the treatment to environmental education from the target, four teachers for 28.5 %, all as are located at high level in two (14.2 %), educational actions are planned depending on the treatment to environmental education but in a casual where improvisation predominates in work on the subject, these are located in a middle level, the rest, eight (57.1 %), are located at a low level because they do not planned educational actions depending on the treatment to environmental education. Planning learning tasks, where theory it is linked and practice aimed at the motivation and guidance throughout the process, was observed only in four classes (28.5 %), on the other 10 (71.0 %) were not planned.

As for the evaluation criteria we can say that of the 14 classes visited, four (28.5 %) are located at a

high level, taking into account the progress of students in the subject referred to education environmental, 11 (78.5 %) is located at a low level, because in the evaluative criteria there are not taken into account the progress of students referred to environmental education.

In the survey applied to teachers, 100 % agree that they are willing to offer a treatment to environmental education, but they agree that they lack knowledge to do so. They are unaware of the cultural institutions where activities and alternatives are offered that allow an adequate treatment of environmental education; therefore, they miss the cognitive potential of these institutions for the completion of their training. Furthermore, they are not always committed to caring for the environment and only occasionally carry out actions for its protection, which is why, depending on the level of severity, they are not capable of taking a critical attitude towards actions that affect the environment; in this regard they are at a low level.

The results of the initial study confirm that, in the needs expressed in the foundation of the problem under study in the research, the knowledge, skills and attitudes are not sufficient according to the needs of preparation in the elements related to the treatment of environmental education; they are unaware of some of the documents that regulate the work of this dimension in primary school; They present limitations in the incorporation of the formative aspiration in the objectives of the classes; they elaborate few learning actions for the fulfillment of the environmental objectives; they plan few learning tasks aimed at the motivation and orientation that must be carried out at different moments of the process; They present difficulties in the selection of teaching methods and means and in the evaluation of the fulfillment of the training aspiration objectives; they maintain a passive

attitude in favor of environmental protection and criticize negative actions.

From the assessment scale to evaluate the level of preparation of the graduates for the treatment of environmental education and after the application of the instruments, the following conclusion could be reached.

Of the 14 recently graduated teachers who are present in the sample, two, representing 14.2 %, are located at a high level of preparation, since they managed to obtain six indicators evaluated between four and five at the high level; Two of the teachers (14.2 %) are at an intermediate level, since they only manage to have between two or three indicators evaluated as high. The rest of the teachers surveyed, 10 in total, accounting for 71.4 %, is at a low level, since none have achieved the least one indicator assessed high.

Table 1 - Treatment of the environmental dimension from class (DIAGNOSIS initial)

Level	From the projection of the Objective	Design of environmental actions in the classroom	Evaluation criteria related to environmental education
High or tall	28.5 %	28.5 %	21.4 %
Means, medium		14.2 %	
Low	71 %	57.1 %	78.5 %

All indicators analyzed showed problem as being the most affected: The documents that govern the work of the environmental education at the primary school, the incorporation into the goals of the classes, the environmental educational aspiration, the evaluation of compliance training objectives aspiration and the actions for the protection of the environment and criticism to negative attitudes.

In this sense, to respond to the proposed objective, a system of workshops was developed seen as a set of workshops linked together, through whose execution it is achieved that people with

common interests and similar inclinations create and discuss generic topics, specific to the debate, professional development and fruitful results that aspire to treat environmental education.

The systemic nature of the proposal is materialized by organizing it as a whole, with a link between all its components. Part of a process of determination of needs, a form of satisfaction in the field of school training, which promotes the training of graduate teachers, based mainly on the search for ways to educate in the environmental dimension and the evaluation of the needs that are manifested in problem solving, seeking alternative solutions and obtaining results.

Characteristics that typify the system of workshops aimed at teachers who graduated from the Bachelor of Primary Education career for the treatment of environmental education

- It deals with a professional problem that originates in practice and returns to it qualitatively, transformed by the professional discussion of the group of teachers with their corresponding contributions.
- Carrying out activities in a cooperative manner.
- The socialization of knowledge.
- The Exchange of knowledge.
- Reflection from a close relationship between theory and practice.
- The development of skills, habits and capacities for group work, with the group and for the group.
- The development of an attitude of search for the causes of problems in order to project solutions from them.
- The improvement in the process of knowledge and scientific production.
- The contribution to the optimal preparation of the professional

How can the system of workshops aimed at teachers who have graduated from the Bachelor of Primary Education be organized for the treatment of environmental education?

The structure depends on the objectives to be met. During its development, the presence of the following moments is suggested: promotion of the topic to be addressed in the workshop, structure, development of the workshop, evaluation and future projection of the achievements.

First moment: promotion of the topic to be addressed in the workshop

Independently that the activity is planned in the Work Plan developed since the beginning of the school year, you must not ignore this time, in order to motivate participants and ensure clarity necessary goals to achieve self - preparation and active and productive participation of teachers.

It is necessary to promote the dissemination of questions, problems to be solved or tasks to be solved, bibliography to be consulted prior to the workshop, so that it serves as a starting point for the theoretical and methodological insights that condition the products to be obtained and socialized.

Second moment: structure of the workshop by the activity leader

It guarantee the logic to fulfill the expected objectives In them we have to take into account not only the content aspects but the dynamic aspects of the process and the participant groups to foresee and to condition the best ways to achieve the experiences, exchange and production results transformation of the object of study and the subjects involved.

In this period, the objectives to be shared with the participants, the fundamental stages of work, the contents that are related to the problem to be discussed, the methodology that will guide the actions, the characteristics of the participants and the places in which will work, the resources that will be necessary to mobilize and the activities that each work team will carry out, in order to promote the development of products that serve as a basis for the new knowledge.

Third moment: development of the workshop

Generally, it starts with the presentation of the objectives of the workshop, teams are organized, the problematization of the subject is presented from the closest experiences to participants and explained how it will proceed. Generally, the experiences serve as a starting point for reflection, discussion, and debate carried out by the participants under the guidance of a conductor where theory is linked to practice in search of the most appropriate solutions.

At this moment it is very important: the internal organization that is given to the workshop, the work of the commissions or teams, the role of observation, the ways of collecting the information that is produced, the role of the driver and the participants. It must be present throughout the course of the workshop, as it has a much greater weight in the conclusive moments, where it is necessary and feasible to collect the value judgments of the participants about the activities carried out.

Fourth moment: conducting the workshops the evaluation and future projection of the achievements

This consists of the establishment of conditions that guarantee the use of the products reached in the workshop, their systematization and / or publication or at

least the realization of the necessary synthesis of the group work that must be made available in some way to all the participants. Taking this moment into account guarantees that the workshop cannot be seen as an isolated and closed didactic unit, inserted in the conclusive moments of a topic, a study period or a particular moment.

The monitoring ensures that the learning obtained in the workshop is reverted in the transformation of the social practice under study or at least that the new points reached are clearly marked to take them as starting points of new teaching intentions initiating a new teaching-learning cycle.

Some budgets that serve as the basis for the realization of the workshop system

- The search for answers to the problems that generally arise in the workshop in an environment that conditions and allows the development of the creativity of the participants.
- The linking of theory with practice, where there are approaches to problems with an interdisciplinary approach.
- The highlighting of the importance of the learning climate as a guarantee to promote active participation.
- The involvement of the personality of the participants as a totality where knowledge, affections, values and convictions are compromised.
- The recognition that the roles of the driver and the participants change in relation to the way in which they manifest themselves on a daily basis.
- The driver cannot pretend to exercise his authority in a tax way if he wants to achieve the proposed objectives and neither can the participants continue in a passive and uncommitted attitude regarding the achievement of the activity objectives.
- The workshop leader assumes the role of coordinator, in order to facilitate participation and the collective solution of problems under discussion or in the process of being solved.
- The organization of the learning process in the workshops, so that the participants have a fundamentally active role so that they can assume all responsibilities and make creative contributions in solving the real problems that arise.
- The use of group work methods, so it is important to educate participants in compliance with group work rules and the development of attitudes of solidarity and cooperation.
- Most of the workshop time is devoted to discussions and not to theoretical presentations of ideas or presentations, since the result of these discussions is the basis of the products obtained in the workshop and these are the carriers of the new knowledge achieved.
- The production of written contributions, either as systematization of the discussions, as elaborated didactic materials, brochures, graphics or banners, or memories that collect the fundamental syntheses.
- The evaluation should focus on the process of building and sharing of knowledge and not in compliance with the objectives of the participants, since not only is important to know how the goals are met but also understand the reasons why not all the planned objectives have been achieved, which allows for possible corrections.
- The evaluation is carried out on two levels, that of the opinions of the participants and that of the evaluation that must be carried

out by the driver or person in charge of him.

In summary, the workshop, like any other form of teaching, is an important and necessary form that needs to be applied with the greatest flexibility and participation of the group of teachers. Only in this way it may be assessed as appropriate membership, use, value and necessity in the process of professional development of the teacher. The life and activity of the educator is characterized by work in groups and with groups. For this reason, it is of great importance in their professional preparation to develop skills that allow the creative solution of problems from collective, cooperative action in the improvement workshops that are developed with the graduates.

Evaluation of the results obtained after the application of the workshop system

After having developed the workshop system, new instruments were applied (observation, survey, interview), which made it possible to verify the level of preparation achieved by teachers regarding environmental education.

In this process, it was finally possible to appreciate that the graduate teachers managed to receive in a systematic way the updating of knowledge and develop skills and attitudes according to the preparation needs, in the elements related to the treatment of environmental education.

In the interview carried out, 85.7 % (12) of the graduates are able to refer to four or five of the problems that affect the environment and refer to at least three causes and are at a high level; 14.2 % (2) refer to three or two of the problems that affect the environment, at least express two causes and are located at the medium level; nobody is located in the low level.

Through the same instrument, it was found that 78.5 % (11) of the teachers refer that they know five or four of the documents that regulate the treatment of environmental education and mention the content of one of them, these are located in a high level; 14.2 % (2) only mentioned two documents that norm treating environmental education and mention the content of one of them, so they are located at a medium level, and the rest or, representing a 7.0 % (1) only mentions two of the documents that regulate the treatment of environmental education and does not mention the content of one of them, the latter are located at a low level.

In this last phase of the research, most of the interviewees consider that the issue of environmental education is a reality and it is a necessity to give priority to their work as a transversal axis within the requirements of the Primary School Model, for the direction by the teacher of the education, teaching and learning processes. They state that they dominate the necessary procedures for an adequate treatment of environmental education at the primary level. In turn, they consider it as something very necessary today.

With the application of the observation guide classes, which was intended to verify the treatment given by the graduate teachers to the environmental dimension in the process directing, 14 classes of several subjects were observed. Of these, in 85.7 % (12) there was an adequate treatment of environmental education, starting from the projection of the objective, these are located at a high level, and the rest, 2 (14.2 %) are located at a level low, since the treatment of environmental education does not start from the projection of the objective.

Regarding the selection of the methods and means that were used during the process, in 12 classes these components were correctly observed, for 85.7 %, placing this indicator at a high

level and allowing a better direction in learning; in the remainder, the selection was not correct for 14.2 %. They managed to plan teaching actions based on the treatment of environmental education from the objective 12 classes (85.7 %), these are located at a high level; In 1 (7.0 %) teaching actions are planned based on the treatment of environmental education but sporadically and improvisation predominates in the work with the environment issue, these are located at a medium level; the rest, 1 (7.0 %) are at a low level because they do not plan teaching actions based on the treatment of environmental education. It was also found that in 12 classes (85.7 %) learning tasks aimed at treating environmental education were planned, where theory and practice aimed at motivation and orientation were linked throughout the process, in 2 classes they were not planned, for 14.2 %.

As for the evaluative criteria you can say that, of the 14 classes visited, 11 (78.5 %) are located at a high level, because in them you have into account the progress of students as referred to environmental education; the rest, 3 (21.4 %) are at a low level, since the evaluative criteria do not take into account the progress of the students with regard to environmental education.

In the survey applied to teachers, 92.8 % (13) agree that they are willing to offer a treatment to environmental education, that they feel prepared for it. They have knowledge of the cultural institutions where activities and alternatives are offered that allow an adequate treatment of environmental education, these are located at a high level, and only 1 (7.0 %) presents limitations in their actions for the protection of the environment, for which is located in a medium level.

DISCUSSION

Conduct an analysis of the historical and logic progress of the process of preparing a professor at the graduate of the degree in Elementary Education requires a brief study of different concepts such as preparation of the professional and particularly the workshop, these categories are defined as the set of Self-improvement activities that with the aim of transforming the performance of teachers in the treatment of the environmental dimension in a systematic, reflective, dialogical, intentional, participatory way are carried out from the workplace, and integrate the demands of society for the preparation of the teachers, the pedagogical practice and the environmental situation focused from the global to the local (Ávila, Santos, Mederos & Espert, 2019, p.93).

To enhance the treatment of environmental education we rely on the postulates presented by different researchers who have addressed the subject. Among them Enebral, Y., Enebral, R. & Pérez (2018); Fernández, Martínez & Bosque (2018); Guevara & Martínez (2018), among others.

In this regard, the workshop system for the treatment of environmental education aimed at preparing the teaching graduate degree career in primary education has surpassed other activities preparation Develop as previously, found through the literature review and interviews developed, to the extent that, far from being merely informative, it reaches an experiential participatory character.

They achieve a positive state of mind with respect to the group. They are sensitized to the topic of the treatment to the environmental education in elementary school, from a self - diagnosis and communicate their perspective on a collective analysis. The teachers show a greater emotional

closeness and sense of responsibility to care for the environment. They reflect and work collectively to generate alternatives to implement in classes, based on environmental education.

By way of conclusion, the practical significance of this result materialized in the elaboration of the system of workshops for the treatment of environmental education, aimed at the preparation of the teacher who graduated from the Bachelor of Primary Education degree from the "Francisco Gómez Toro" schools and "José de la Luz y Caballero" from the Mantua municipality; It contributed to develop didactic changes in the way of preparing the graduate teacher, characterized by its systemic, flexible and developer nature and by promoting the socialization of teachers.

The implementation of the workshop system allowed the preparation of teachers graduates to show in a creative way to the generalization of lessons learned and apply the knowledge to their personal and professional capacity, showing a qualitative leap in the results.

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Authors' Contribution:

Yandi Cruz Castro: Conception of the idea, authorship coordinator, general advice on the topic addressed, literature search and review, translation of terms or information obtained, preparation of instruments, application of instruments, compilation of information resulting from the instruments applied, statistical analysis, preparation of tables, graphs and images, preparation of the database, writing of the original (first version), review of the applied bibliographic standard, review and final version of the article, correction of the article.

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