


RESEARCH FROM THE CLASSROOM: RESEARCH SEEDBEDS IN COLOMBIAN SECONDARY EDUCATION

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ABSTRACT

This document presents the educational research model from the classroom implemented at the Colegio Gimnasio Campestre El Rodadero, in the city of Santa Marta, Colombia. This model consisted of creating a research seedbed integrating middle school students, with the aim of generating academic spaces that would allow the development of investigative skills from the area of humanities, according to the guidelines that the national Ministry of Education proposes. For this, the anthropological theory of the didactic was implemented, understanding education as a social process of cultural transmission. Methodologically, school ethnography and action research were applied. The results, for this case, show that the creation of seedbeds strengthens the investigative competences in the students through collective work, encouraging them to be interested in science and research, in contrast to the formalist and unilinear methodologies traditionally used.

Keywords: educational anthropology; ethnography; teacher-student interaction

Investigación desde el aula: semilleros de investigación en la educación media colombiana

RESUMEN

En este documento se presenta el modelo de investigación educativa desde el aula implementado en el Colegio Gimnasio Campestre El Rodadero, en la ciudad de Santa Marta, Colombia. Este modelo consistió en la creación de un semillero de investigación integrando a estudiantes de educación media, con el objetivo de generar espacios académicos que permitieran desarrollar las competencias investigativas desde el área de humanidades, de acuerdo con los lineamientos que el Ministerio de Educación nacional propone. Para ello se implementó la teoría antropológica de lo didáctico, entendiendo a la educación como un proceso social de transmisión cultural. Metodológicamente se aplicó la etnografía escolar y la investigación acción. Los resultados, para este caso, muestran que la creación de semilleros fortalece las competencias investigativas en los estudiantes a través del trabajo colectivo, incentivándolos a interesarse por la ciencia y la investigación, en contraste a las metodologías formalistas y unilineales utilizadas tradicionalmente.

Palabras clave: antropología educativa; etnografía; interacción profesor-estudiante

Pesquisa em sala de aula: viveiros de pesquisa no ensino médio colombiano

RESUMO

Neste documento apresenta-se o modelo de pesquisa educativa a partir da sala de aula implementado no Colégio Ginásio Campestre El Rodadero, na cidade de Santa Marta, Colômbia. Este modelo consistiu na criação de um viveiro de pesquisa integrando estudantes de ensino médio, com o objetivo de gerar espaços acadêmicos que permitam desenvolver as competências investigativas a partir da área de humanidades, de acordo com as orientações propostas pelo Ministério de Educação nacional. Para isso foi implementada a teoria antropológica da didática, entendendo a educação como um processo social de transmissão cultural. Metodologicamente foi aplicada a etnografia escolar e a pesquisa ação. Os resultados, para este caso, mostram que a criação de viveiros fortalece as competências investigativas nos estudantes por meio do trabalho coletivo, incentivando-os a interessar-se pela ciência e pela pesquisa, em contraste com as metodologias formalistas e unilineares utilizadas tradicionalmente.

Palavras-chave: antropologia educativa; etnografia; interação professor-estudante

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INTRODUCTION

The Colegio Gimnasio Campestre El Rodadero (Gicaró) is a private institution that, through its philosophy and humanistic vision, bases its pillars on support for student participation and initiatives. Having in mind characteristic tips, it becomes a suitable space for the generation and consolidation of educational proposals that allow new forms of teaching, learning and the emergence of the investigative project absent in the areas taught in the institution. Thus, this work is framed in "Anthropology of education", a relatively new field and in constant discussion in Anthropology (Franzé, 2007; Bernal-Martínez de Soria, 2008; Velasco & Reyes, 2011), a discussion that in the will be addressed in this writing, but it achieves validity in its applicability and that on the ground it is limited to the role that anthropologists fulfill as educators or participants for the learning process, in isolated communities, socially segregated, bicultural spaces and/or indigenous communities (Velasco & Reyes, 2011).

As a result of some studies in the anthropology of education, tools have been developed for the improvement of educational models since the classroom, as is the case of the anthropological theory of didactics (TAD) proposed by Chevallard, Bosch y Gascón (1997), who presents this theory as a pioneering approach "in considering as an object of study and investigation, in the sole of the activities of teaching and learning in the classroom, as well as the entire process that goes from the creation and use of mathematical knowledge to its incorporation in the school as learned knowledge" (Bosch & Gascón, 2009, p. 90). The tools used the TAD demonstrate how through research from the classroom, the concepts and theories of an area of knowledge can be taught, the skills, regardless of the designation taught, provide interdisciplinary conceptual and methodological models applicable to other subjects, (for its case the mathematics and for the presented here, the social sciences), allowing the innovation in the scope of learning and teaching, to integrate the groups or research teams, which aim to bring the child closer to a better understanding practice of the information received in the classroom.

While the conformation of the seedbeds or the research groups, these, in agreement con la TAD, emerge as a learning strategy, where students face the resolution of everyday problems in their surroundings and in society, employing them, formulas and mathematical theories taught by the teacher, this allows the student to relate theory-practice, managing to understand the importance and usefulness of what is learned in class. Thus, a similar process to the one planned for the learning of mathematics was carried out in this investigation regarding the teaching of the social area, but in this case not as a learning strategy,

but as a pedagogical initiative that articulates the processes of learning, with the purpose of strengthening and providing spaces for the investigation of the social sciences, which are linked to the student's observation of their own reality, resorting to the knowledge imparted in the classroom: geography, history, economy, politics, citizen competences, etc.

On the other hand, for the development of this educational model from the classroom, the concept of IEA (Investigación Educativa desde el Aula)¹ is implemented, which appears as a didactic mechanism to know the "real child"² and generate spaces that allow the strengthening of education, from an educational responsibility perspective, with the aim of building excellence processes and rescuing the importance of research from the classroom, both for the children's learning process and for the integral formation of the teacher (Ascano, 2009).

The traditional educational models in school education have been imperative to the present, these models "are related to character education, discipline as a means to educate, the predominance of memory, the curriculum centered on the teacher and the oral methods teaching" (Gómez & Polanía, 2008, p. 53). This type of pedagogical models is maintained in a continuous act where the teacher dictates the lesson to the students, who receive the information and the transmitted norms. The learning becomes an act of authority, in which the students are treated as simple recipients, unable to go further than the learned lesson (Flórez, 1994, De Zubiría, 1994, cited by Gómez & Polanía, 2008).

However, due to the constant changes in society, education is in need of transforming, reinventing and adapting to current contexts, given that "there is still a large number of institutions that continue to develop classes as in past, without importing that the students handles a wide variety of electronic devices in their daily lives" (Acevedo, 2016, p. 3), put in the scenarios of the information society for children and young people if they are more easy to access the information. Therefore, it is necessary to propose avant-garde pedagogical models that deviate from the traditional conceptions that have prevailed until the time.

These traditionalist models in the classroom, in addition to being unilineal, deprive the student of discovering the different sources of information, and that the teacher is taken as the main source within an instructive environment, "when the students

¹ Educational Research from the Classroom

² It is understood as "real child" all those capacities that a student has, but these in biased educational models cannot be developed or potentiated, because said model limits them (Ascano, 2009).

contemplate few sources to learn, and in general, it does not allow students to learn in interaction with others" (Ordóñez, 2006 cited by Salazar, 2013, p. 7). This is why it is necessary to use and implement different pedagogical strategies that allow changing and innovating in the teaching – learning relation, guiding the student through autonomous learning, collaborative work that enables meaningful learning as "the human mechanism, par excellence, to acquire and store the immense amount of ideas and information represented in any field of knowledge" (Ausubel, 1963 cited by Moreira, Caballero, & Rodríguez, 1997, p. 2).

Thus, the "pedagogical renovation movements", such as the "new school" are models that emerged at the end of the XIX century in Europe, which were spread around the world (Narváez, 2006) these emerged as:

Opposition to a pedagogy based on formalism and memorization, on didacticism and competence, on authoritarianism and discipline, the new education claims meaning, value and childhood dignity, focuses on the child's spontaneous interests and aspires to strengthen its activity, freedom and autonomy (Palacios, 1978 cited by Narváez, 2006, p. 630).

Now, in the Colegio Gimnasio Campestre El Rodadero, methodologies based on the concept of new school have not been implemented, which provide educational excellence, in the framework of innovation, science and technology, because the pedagogical model that has been implemented since its creation until the date is a traditionalist model based solely on teaching from and for the classroom, in which individual aptitudes are not recognized, in the particular interests of students, otherwise, homogenizes the population student under a one-sided model and selected for memorization and evaluation of the information received in the classroom. As the institution has spaces that allow the development of other pedagogical strategies, these are in disuse and/or abandoned, as is the case of the library and the laboratories of chemistry and physics that are rarely used. This type of teaching methodologies and abandonment of spaces that are extremely important for the formation of children, have created a practical void among students and hampered the development of investigative attitudes.

For the Social Sciences, which is the area of interest for this investigation, the abandonment of the library represents a great problem, since students have not developed their daily interest in bibliographic consultations, which is a basic principle in research from any area. However, there are many factors that have influenced the abandonment of this type of scenario, such as not having a librarian and that students do not have free access to books, and that they are found

under the key. Anyway, to carry out consultations, the students access the computer room and the library, some consultations are carried out with the prior consent of the area teacher.

In this way, thereby the investigation in the classroom serves as an approach for the fulfillment of the Basic Standards of Social Sciences proposed by the Ministry of National Education of Colombia (MEN), in which it is proposed that the scientific activities of students should be encouraged, and with the challenges proposed by the Decennial National Education Plan (PNDE): "stop teaching the same" and "more support for science and investigation". However, there is a lack of innovative methodologies, of projects that promote research from the classroom. Thus, observing the lack of interest in science in the student community, the absence of strategies that allow the emergence of investigative competences, and the imperative of traditionalist, one-sided and formalist models, it was decided to approach ethnographically the conformation and the dynamics developed in the research unit in social sciences (grupo de investigación ambiente, tecnología y sociedad)³ GIATS, with the objective of understanding the investigative competences of students and at the same time generating spaces in the institution for the strengthening of research since the school stage.

THEORETICAL FUNDAMENTALS

The concept of Investigación Educativa desde el Aula (IEA)⁴ as mentioned above, is a little developed practice. According to Ascano (2009), the implementation of Educational Research from the classroom will allow the paradigm shift in teacher practice within the classroom, as defined by Dehesa de Gyves (2015), moving from a passive and traditionalist methodology, to an active and intervention, in which the scientific method can be adapted to the institutional context from the classroom, allowing to know the children's facilities. However, not only the IEA offers the possibility of identifying the faculty or abilities of the students, this practice is a two-way work, where the teacher has as a job to be linked to the investigative process, not only in order to improve his/her work as a teacher, otherwise with the purpose of creating educational processes of excellence, in which the teacher in the field is only a passive reproducer of information, on the contrary, becomes a producer and creator of knowledge, recognizing students as central subjects capable of contributing to these processes of cognitive creation, considering that "(...) the processes of teaching and learning from a research perspective can provide a progressive transformation in teacher training through reflection and critical investigation" (Osicka, Giménez, Benítez, & Álvarez 2002, p. 1).

³ Environment, technology and society research group

⁴ Educational Investigation from the Classroom.

Furthermore, we consider that “pedagogical practice” is the one that unfolds in the context of the classroom, in which a certain teacher-knowledge-student relation is manifested, centered on the relationship: teaching and learning; here it is a matter of investigating with the student, teaching how to ask and asking, trying to reframe a process of teaching - learning opposing the mechanization of the information that the student receives, to collectively build a questioning and participatory perspective, making the student believe questions about reality, its daily life and that allow to investigate, build and produce with the student, that is to say, a joint work that overlaps the barriers, teacher – student (Duhalde, 1999 cited by Osicka et al., 2002).

The IEA can be approached from different fields, from which other methodologies, categories of analysis and theories can be derived, such as the case of the TAD proposed by Chevallard (1999). This proposes an approach to research from the classroom in the area of mathematics, in which it presents an IEA design related to the everyday problems that are faced every day. In the Anthropological Theory of the Didactic, mathematical knowledge is presented as a social institution, where it is proposed from the notion of praxeology (praxis by practice and logos by theory), in this way the TAD, proposes the IEA as a combination of information taught in class, on the ground highlighting the theoretical, as well as presenting the forms in which these theories can be used and applied.

The model of the TAD by Chevallard, sets out three phases which guide the investigation from the classroom: mathematical knowledge, which constitutes the theoretical knowledge that the child receives; doing mathematics, corresponds to the execution, practice and applicability of information, problem solving using mathematics for certain tasks; studying mathematics, “which consists of building or reconstructing certain elements of a mathematical praxeology to respond to a certain type of problematic task” (Chevallard, 1999). If this theoretical model arises under the needs of mathematics, the methodological concepts that provide its structure for the creation of research groups from the classroom, this model is applicable to other disciplines and educational contexts, which is why it has served as a fundamental basis for other IEA models and can be considered as one of the pioneers in the creation of research groups from the classroom, although, in the same strictness that brings a seedbed.

For the case of social sciences, Quintero (2013) has carried out a series of reflections about how since the classroom, in the process of teaching/learning of the social sciences, can provide research spaces with the purpose of making an approach to learning significant, changing the paradigm of the traditional educational model, and thus providing the student with

the necessary didactic tools so that they awaken their curiosity, using newflaged methodologies that create a questioning attitude in the child about real situations, while learning to identify and solve problems what was learned in class. In this sense, TAD as a theoretical model seeks to ensure that the teacher converts into a guide that, from the information provided in classes, can provide the methodological and conceptual tools necessary to encourage scientific knowledge in the student. In this way,

the selection of the contents that are to be built must be part of a whole process that involves knowing the epistemological and historical foundations of the discipline, psychological references that guide learning to learn, analyzing the advantages and disadvantages of the determined contents, the referents didactics, what Chevallard (1991) calls didactic transposition (Aldana, 2010, p. 9).

This “didactic transposition” is a central point in the creation of seedbeds from the classroom where there are four requirements: 1) Recognize the creative potential of students, 2) Team work, 3) Positioning of Science, and 4) Production of scientific knowledge.

MATERIALS AND METHODS

The methodology used for the development of this work was of a qualitative approach, which “is based on a conceptual-inductive model whose first task is to delimit the phenomenon to be studied. Later, other questions will arise about the characteristics of the phenomenon and its particularities from an exploratory-interpretative investigative role” (Aravena, Kimelman, Micheli, Torrealba, & Zúñiga, 2006, p. 40). In this way, from the perspective of the anthropology of education, qualitative research is conceived in this work as: “the search for understanding and interpretation of human and social reality, with a practical interest, is to decided with the purpose of directing and guiding human action and its subjective reality” (Martínez, 2011, p. 12).

In this sense, the research-action perspective was implemented, as a recurrent study method in anthropology, which has taken strength in the last decade through the participatory action research (IAP) category. However, the investigation-action is defined by the criteria that seek to delimit an investigation, in this way the investigation-educational action enjoys a certain specificity, but both models are interchangeable, because “The people work with the intention to improve their own practices” (Murillo, 2010, p. 5). Therefore, the design of this investigation is framed in the investigation-action (educational), defined by Kemmis (1984) as:

A form of self-reflexive inquiry carried out by those who participate (teacher, students, or

management, for example) in social situations (including educational ones) to improve the rationality and justice of: a) their own social or educational practices; b) their understanding about them; and c) the situations and institutions in which these practices are carried out (classes or schools, for example) (Kemmis, 1984 cited by Murillo, 2010, p. 4).

Thus, the form of inquiry was given by several participants (teachers, students, directors and the area of psycho orientation), while the social situations were studied determined by the classes taught in the classroom and the various academic scenarios present in the institution. Likewise, an exhaustive review of scientific documents related to educational research models, a review of the institutional educational project (PEI) and the pedagogical support guide (GAP) of the institution was carried out; all this with the purpose of delimiting and establishing the concepts and categories of analysis relevant to the investigation.

Another of the tools that was implemented in this work and that defines the Anthropology of Education (AE), is the school ethnography, through this methodological tool it is possible to interpret the elements that are found in the school environment, and say, allows the analysis of educational contexts, in order to understand the actors, roles, structures, among other categories, which are suitable for the anthropological discipline, are not isolated from other scenarios, in this case the school environments (Velasco & Reyes, 2011; Alvarez, 2011). Therefore, through school ethnography, the school environment was described prior to the implementation of the educational research model, in addition to conducting semi-structured interviews with the participants.

RESULTS

Since its creation, the GICARO institution has adopted the traditionalist pedagogical model, a model that has prevailed for nearly 30 years and that is replicated in each and every one of the signatures. Despite its large sector in the educational sector and having 3 specialized teachers (Humanities, Mathematics and Sciences) and a magister (Philosophy, Ethics and Religion), it was found that the basic standards of models based on competences proposed by the National Ministry of Education had not been applied since 2006 for all these areas. Furthermore, noticing the abandonment of scenarios such as laboratories and library, prioritizing the methodology of master classes from the classroom, there is little interest in the development of scientific thinking and investigative competences.

Just like that, the basic standards for the Social Sciences were not implemented in the institution, they were put in manifesto during the weeks dedicated to the

diagnosis, since according to the MEN, from the Social Sciences, it was necessary to work on the citizenship competences, from a political and coexistence sense (Murillo & Castañeda, 2007), an area that has not yet been developed in the institution, but despite this situation, the basic standards invite a change of paradigm in education, in search of research and innovation, in favor of achieve an education of excellence.

In this sense, the traditionalist model has prevailed in the institution, and while the training of many teachers presupposes that transformations are carried out in this model, the guidelines of the institution have declared that they must maintain the ideals under the school, it means, under a model of traditional and Catholic education inherited from one generation to another, in which before starting classes, the most important thing is to form in lines and to carry out the daily prayer to the virgin Maria. In addition, the majority of the family parents are close to the directives of the institution, and the linking of their children to the school is due to the friendship bonds and belonging to the Catholic Church of El Rodadero.

As the traditional pedagogical model is institutionalized, which consists of master classes always from the classroom, it is difficult to implement new standards, in addition, to comply with the policies of the institution, there are a series of characteristics such as the prohibition of work in groups, pedagogical outputs and computer work, summarizing the abandonment of laboratories and library, little use of ICT tools and other educational and information resources (such as the institutional platform Sys Colegios).

It was based on this information that it was decided to study the possibility of creating a research unit for the area of Social Sciences, as a proposal for educational research, which would allow the development of investigative competences, in order to propose a new pedagogical model that articulate with the proposed by the MEN and with the new challenges planted by the PNDE 2016 -2026. It proposes that when presented and socialized before the institution (administrative committee, academic and board of parents, it was of great acceptance and supported by the different committees.

1. Educational research model Colegio Gimnasio Campestre el Rodadero - research seedbed (GIATS)

1.1. Recognition of students' creative potential

The recognition of students' creative potential is defined as the first phase for the creation of a research unit as an IEA project, in this case, on the ground the actors participating in the process are defined, if not also their capacities, strengths are recognized and/or skills, with the purpose of exploring and strengthening them in different scenarios.

One of the evaluation instruments used for the process of selecting students, supported the support of the argumentative essays, by means of the oral presentations, the students showed their capacities for the management of the consulted information and presented their argumentative analysis about them. topics to be addressed, here we sought to analyze their research and oratory-oriented capacities. In this sense, this search for creative potential starts with the objective of the positive projection of themselves, taking students without importing their condition (Aldana, 2010).

Ilustración 1. *Semilleristas durante la prueba de conocimientos aplicados sobre las TIC. I.E.D. Madre Laura.*



After the evaluations within the classroom and those carried out in the area of psycho orientation, the participation of students in the research seedbed was determined, in which they were defined as lines of investigation: environment, technology and society. Lines established to support the interests of students and the management members of the institution, under the orientation of researchers.

Once the lines of investigation have been defined, the process of transmitting knowledge begins, where the student of understanding the themes of his interests, begins in the investigative field, learning the methodologies and research techniques, which now takes part of their learning process, having found that:

Learning is conceived as a personal construction mediated by the other actors in the educational process of teaching and learning, as a process of social communication among these actors, as a joint construction that involves the negotiation of meanings and the progressive transfer of control and responsibility of the learning process of the teacher to the students (Jorba & Gómez, 2000 cited by Aldana, 2010, p. 7).

1.2. The work in team

If we start from the premise that: a seedbed is a set of seeds, we can understand the work in a team as the base of a research seedbed, it comes from the school or from any other academic scenario (Villalba

Cuéllar & González Serrano, 2017). In this sense, through collaborative work, meaningful learning can be promoted, as strong communication gaps are created for collective growth, while individual attitudes and roles within the research group are strengthened that are linked to the acquisition of responsibilities.

Through the recognition of individual aptitudes and by integrating the different skills that each child has, the general capabilities of the research group are solidified, and that through teamwork, the scope of the seedbed is made possible, this allows “capturing the essence of team learning: thinking, producing scientific knowledge and acting synergistically, with full coordination and a sense of unity” (Aldana, 2010, p. 8).

Thus, the collaborative work carried out in the GIATS seminary allowed the de-construction of the collective imagination about scientific knowledge, as an unreasonable and extremely complex knowledge for the student community; on the contrary, the students managed to take advantage of this knowledge recognizing their strengths and weaknesses, to work on them together, managing to reach that “real child” capable of doing science from the classroom with their companions, while searching, from their knowledge and investigative concerns, transform reality into what it belongs to, looking for alternatives to solve the problems observed since their role as a boy/girl investigator.

Illustration 2. *Seedbed students carrying out bibliographic consultations. Margarita Navarro's photo.*



In the dynamics of the seedbed, the theoretical references were applied to be assigned the first activities. The kids got together to carry out the bibliographic review of their first research work: “Afro-descendants in the independence process of Colombia” (theme chosen by the students from the list of topics suggested by the Bolivarian Museum of Contemporary Art), in which assigned tasks, how to consult texts in databases, in the library of the institution and in the library of the Bank of the Republic. Subsequently, the collected information was shared with the group and the writing of the document began, using ICT for collaborative work, such as Google Docs. Therefore, with the same methodology, the other works were carried out: 1) Young people for peace, 2) Competitiveness

in the Caribbean, and 3) Sustainable development in Santa Marta.

1.3. Positioning of Science

One of the fundamental characteristics of the research seedbeds in the school, is to create interest in scientific knowledge. The teacher as a leader, must propose, create and generate spaces that allow the development of the investigative attitude among children through the presentation of science as an attainable object, a practice that can be accessed without limitations.

From the TAD, knowledge is shown as a social institution, which can be accessed, transformed, studied, etc. In this way, the mathematical knowledge that preaches Chevallard (1999) turns out to be a social institution that is present in all the scenarios of society. The research problems are then conceived as something accessible that children are capable of solving. In this way, science is presented as a participatory scenario, reachable and where students can belong.

1.4. Production of scientific knowledge

In terms of consolidating research teams in the school, it is important to generate interest and motivation among students from the formulation of questions and the design of activities; this will make it possible to establish connections with the teaching contents that can be reconstructed using theoretical models (Aldana, 2010).

In order to present science as a participatory and accessible space, it is necessary to produce scientific knowledge based on these exploratory experiences. It is necessary to clarify that the scientific production in this period of schooling has specific depth levels. However, students are trained in scientific parameters such as the use of APA standards to write academic texts, and in the elaboration of research projects.

Illustration 3. Seedbed students at the Science and Technology Fair Gymnastics: "Changes in the brain through human evolution"



In this way, scientific production is oriented towards employing the knowledge acquired in the learning process, to relate what was learned in the classroom

with the investigative activities carried out by the child. Thus, the young researchers strengthen their knowledge while framing their productions with the assimilated theoretical models.

To apply this IEA model in the production phase, the seedbed students prepared a document for each of the participations in the events they attended, to apply theoretical, conceptual and methodological models that guided each investigation, whose production was guided by the knowledge learned during training in research methodologies and techniques. This demonstrates the relationship between the knowledge learned in the classroom and what the child is able to generate from said knowledge.

DISCUSSION

Creating educational strategies in search of transforming the established canonical dynamics is one of the main challenges assumed by contemporary educators. It is necessary to understand education as a social process, as Velasco, García and Díaz (1993) propose interaction is necessary. This interaction between the actors, in the case of teacher-students, is the key for the construction of communication points and how to understand "the other".

In this sense, the ideas of a research always arise from a previously established problem question, on occasions if it is necessary to be there, at that moment, in that place, and resort to all those knowledge as researchers; to analyze the context, the actors involved, the ways of communicating, and this is where questions are asked. Starting from this interaction and recognizing the structure of the dynamics that had been established, it was what made it possible to build a proposal that would adapt to the educational needs of the student community. Here is the interaction where the proposal and its successful consolidation require a series of dialogues among the actors involved, which is more than an "extensionism" (Freire, 1970), it is a dialogical process that little by little eliminates the figure of "The other" as it is articulated in the process through a horizontal communication (Beltrán, 2007).

The consolidation of the research seedbed in this school is the result of this participatory and inclusive dialogue, in which the students felt capable of being leaders and autonomous in their own process. In this way, they feel their own process, having responsibilities and allowing themselves to create, innovate and participate deliberately, allowing an educational strategy on the part of the teacher to become an integrative space of ideas.

On the other hand, it is important to point out that since anthropology many times educational studies have been segregated, to such an extent that in the new trends it is deliberate whether the anthropology of education is really anthropology. However, we consider that this type

of research positions the anthropologist as a versatile researcher who makes use of the interdisciplinary bases on which the discipline was built, “a trait that has characterized it since the birth of anthropology” (Korsbaek, 1999, p. 182). To understand education as a cultural phenomenon, in which there is an infinity of actors and elements, the paradigmatic barriers that have been established in the anthropological work are broken, in which the anthropologist, when it comes to education, is limited to works educational programs with rural and indigenous communities, linguistic processes, with different approaches, etc., limitation that is a product of the rooting of the classic view of anthropology.

In this way, it is necessary to understand education as a social process of cultural transmission, as the main institution of western enculturation, which can and must be of anthropological interest, where the ethnographer enters into other types of scenarios and contexts, but there are those who are suggested from the classic indigenous and observer view of alterity.

Thus, the series of developed experiences has shown a field that was previously unknown to students, who, although they are daily faced with a traditionalist pedagogical model, they have discovered that there is a world outside the classroom where they can share their experiences as children. Investigators are what Ascano (2009) refers to when there is a real child, who knows their abilities, skills and abilities, in order to sum them up in new scenarios of knowledge.

Applying models such as TAD, students demystify science, understanding, understanding and being able to produce scientific knowledge, which is the last end of educational research, create educational processes of excellence, which improve the national panorama and allow for improvement in levels educational since early age.

Therefore, the creation of the GIATS seedbed has allowed the development of investigative competences in the institution, this group that started with small goals that were consolidated through collective work, has managed to encourage the rest of the student community to do science. The children's participation in different events and the recognitions obtained, has created a spirit of motivation among students and teachers, who can see the good results of the group has begun to encourage students to investigate, to make use of available resources in the institution, and from the directive area, proposes itself as a goal in 2018 to create the emphasis in research for the institution in general in all grades.

Finally, it is important to note that the group and the institution are registered on the Colciencias platform (GrupLac), which positions the institution and allows it to approach these standards of investigative

competence at an international level. In this sense, the entire process on the ground has contributed to implementing the investigative competences in the institution, as well as allowing the enrichment of the teachers, initially complying with the challenges proposed by the MEN and the PNUD, innovating and creating educational models that allow the growth and improvement of Colombian education.

FINAL CONSIDERATIONS

The models for the creation of research spaces in early school ages presuppose a great challenge in Colombian education. It is necessary to point out that there is a great difference between public and private schools, especially in terms of physical and economic resources, in addition to a teaching plant that, on many occasions, is insufficient to meet the needs of the entire student population in charge.

For the application of this model, in other scenarios; if there is a need for a series of adaptations that allow them to adjust to the context of public and rural schools; in this way it could reproduce itself with different ages in primary or secondary school. However, it is necessary to learn more and innovate in the application of learning strategies from other areas of knowledge. Precisely in the contextualization of school environments, the importance of school ethnography is highlighted, since it allows us to recognize those different elements of schools, their environment and all their participants, in addition to providing relevant information about individual and group learning processes.

As well as this case study in a private school, it can serve as an input for the creation of other strategies for the fulfillment of the standards proposed by the Ministry of National Education, although it is necessary to carry out future investigations on how to approach this type of strategies with others areas of knowledge and integrate with other actors of the school, such as the parents of the family, workers, villagers and bet on a participatory action research methodology.

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