



Creativity in the Acquisition of Cognitive Skills in Upper Basic Students



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*cognitive abilities;
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strategy;
students;*

Abstract

Research has shown that the development of creativity in human beings, above all, from an early age, favors them in multiple aspects of their daily lives; being at the same time, the key to the acquisition of their cognitive abilities. Therefore, the present work focused on the review of creativity in students between 11 and 14 years of age from the "Amazonas" Educational Unit of the city of Chone, in the 2021-2022 school period. The stated objective was to determine the creativity in the acquisition of cognitive skills in the students of the upper basic. The study was developed under a mixed approach, since, due to its variables, it was necessary to combine both approaches, measure them on a scale and finally analyze them; based on a field and documentary bibliographical investigation; using the interview with the rector of the educational institution, and the survey with nine objective questions addressed to teachers, parents and students; where the failures of the teacher's participation in the classroom were evidenced in a large percentage, such as: planning with non-creative didactic resources; limited training on innovative teaching strategies; and, decreased stimulation of cognitive development. Therefore, it was concluded that the shortcoming is in the teachers of the upper basic towards their students, by not using adequate didactic strategies, not constantly training, and not stimulating the development of creativity, which causes them to lack interest in developing the teaching-learning process with quality.

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1 Introduction

Creativity has been playing one of the most important roles inside and outside the classroom, especially in the school environment, for many years and at a global level. Just as it is expressed ([Cárdenas, 2019](#)), Creative capacity leads humanity to reflect on the things that happen around them and seek possible solutions to different problems. Delimiting this appointment, it is necessary and urgent that teachers in the classroom encourage the development of creativity in their students, through necessary and effective didactic and pedagogical strategies of their educational environment.

At the national level, the educational system has shown a group of difficulties, for which, the entities in charge of this issue, every day look for better solution alternatives; exposing new ideas, and imitating educational models that have been successful in other countries around the world; and all these alternatives to search for a solution to the problem, have a lot to do with creativity ([Chiesa et al., 2011](#); [Bastianet al., 2005](#)).

Unfortunately, those proposals are not put into practice with the necessary efficiency, because in reality as a country, it is easy to realize that not all teachers in the national education system are people who have chosen this career out of vocation and love. , rather, his teaching is not of the quality that is expected, and that greatly affects and harms our education in student learning; obviously, not to mention that there are also excellent teachers who do their job very well and their students have achieved the desired success ([Beghetto, 2007](#); [Davies et al., 2013](#)).

This problem also occurs with incidence in cities or cantons of the Manabí province, especially in the rural sector, where there is conformism on the part of parents and teachers regarding the learning of students; although, in the urban part this problem is also present, but with a smaller proportion. In this province there is a lot of talent to be exploited, but there is no support from the authorities to bring out or explore the creativity that many citizens have, even more so in the artistic field ([Kahn, 2018](#); [Quintas et al., 1992](#)).

In the Chone canton this problem is also present, there are teachers who are not very creative where they do not arouse interest in the student, nor do they motivate them to develop creativity, they simply comply with a plan. In most educational establishments, teachers forget to present or apply something new within their teaching practice; For this reason, the way that creativity influences the acquisition of cognitive skills in the students of Basic Superior of the EU "Amazonas" of the Chone canton in the period 2021-2022 was proposed as a research problem.

Its objective is to determine creativity in the acquisition of cognitive skills in upper basic students. In this sense, it must be known that teachers must now recognize that they belong to an innovative and creative knowledge society, which requires a portfolio that integrates knowledge, skills, and attitudes, in order to achieve an effective learning environment ([Alcívar, 2021](#)), which involves the teacher as the primary actor of teaching, where day by day he must be updated with new proposals and put them into practice with his students, thus strengthening the learning processes in them, applying creativity through them.

The present work is justified, because creativity is the ability that every individual must possess to innovate, create and generate ideas and concepts in problem solving, [Alvarado \(2019\)](#), states that creativity is a right that all individuals must possess, for the improvement of the lifestyle this should be applied with greater emphasis on teachers.

This research is part of the personal and professional development of the student, although at first glance it may seem something not so relevant, it is a fundamental piece in their lives. It is original, because no other research has been carried out previously in this canton on the development of creativity in students of higher basic education courses. It is considered feasible, due to the predisposition of the rector, teachers, and students of the educational establishment, for the present investigation to be carried out in said educational institution; the same that, considers important to develop, in favor of carrying out more creative and innovative school tasks and practices ([Weiser et al., 2008](#); [Swanson, 2001](#)).

The upper basic students of the "Amazonas" Educational Unit of the Chone canton will benefit directly, according to the research and results obtained, it will be used for the design of a proposal, which will leave a mark and especially to the author of the proposal research.

2 Materials and Methods

In the elaboration of the methodology of this article, taking into account the objectives that favored and guided this research, which, according to its approach, was a mixed, qualitative and quantitative research, according to its variables, the combination of both approaches, to be able to measure them on a scale, and then carry out their respective analysis; In the same way, according to its source, it was a field investigation and documentary bibliographical type, due to the direct collection of real data from investigative techniques in an orderly manner; and, for the literary revision that was made in books, theses and scientific journals available on the internet, from which the necessary information was obtained from the different scientific sources.

The method that was used was the inductive-deductive, for the study carried out on the research problem generated in the educational institution, to know the causes, to establish possible effects associated with the problem and appropriate to the context and the educational reality. Likewise, the study population and sample were made up of nineteen upper basic teachers, thirty parents and thirty students distributed equally among the three basic years (eighth, ninth and tenth year), and the rector of the educational institution. In total, the research sample was developed with 80 people.

The instruments applied in the study of the subject were the survey carried out on teachers, students and parents, an interview with the highest authority of the educational establishment. It is worth mentioning that, since the students were on vacation at the time of applying the instruments, it was not possible to apply the observation of classes in a virtual way, and in this way to have obtained more accurate information regarding the research topic.

3 Results and Discussions

There are different activities that help the cognitive development of these students, many of them are unknown by teachers hence they continue with the processes of traditional education.

Creativity

Creativity is considered as the transformative potential of the person; in which, teachers must be the entities in charge of cultivating in the student's education that creative potential can be developed through the use of teaching strategies and techniques according to each one of them, according to their stage of development, so that later, they generate transformations that take various forms for their benefit (García, 2018). This conception stimulates all teachers or professionals, who are in charge of teaching class topics in the classroom, to reflect on the use of traditional teaching methods that they use in classes, which largely does not allow the educational system to advance; for which, it encourages the teacher to work with modern methodologies, which arouse curiosity and reflection in students, and become confident people when planning and developing creative activities (Shahiri & Husain, 2015; Lund et al., 2010).

Creative thinking

All individuals have creative thinking from birth that is expressed daily in various situations (Carvalho et al., 2021), they state that creative thinking is one that contributes with the necessary tools to confront challenges of the context; and, that works as a strategy in the formulation, construction and resolution of situations and problems of daily life, for being an essential factor in the path of the adaptation process of man in his maturation and personal well-being, as well as to the demands of development economic and technological, which provides the necessary well-being to continue in the daily fight for better days.

It is noteworthy that there are factors that go for or against the development of creative thinking; such as: the geographical, school, family and community environment; When referring to the geographical environment, it is expressed that the environment in which the child lives must be taken into account, the choice of a school or college is the exclusive responsibility of the parents, and it is precisely in this, at home and the community, where the different potentialities and abilities are developed; Another aspect is the school environment, where the student's permanence in the educational institution and the experiences that are applied in it, also contribute to their development of skills; When mentioning the family environment, it describes the quality and quantity of behaviors and attitudes that influence their personal interests and the development of their intellectual abilities, by being in constant interaction with other people; finally, when talking about the community environment, it refers to the social environment with which the child relates outside of school, and which greatly influences the educational opportunities available to them (Serrano, 2016).

The education of creativity

The learner is the one who plays the most important role in the development of creative thinking in the classroom, by using the appropriate resources and methodologies in their learning that they provide to achieve said purpose, participating especially in teamwork, in which there is the participation of everyone with ideas of solutions to problems (Valero Matas, 2019), Arguing the author's idea, it is possible to deduce that within the educational institution, it is the appropriate place to develop creativity; combining it and relating it to the previous experience of knowledge that the child has, towards the new knowledge that he or she is going to acquire at school; Therefore, this individual will have the need to go through countless experiences and learning that lead him to incorporate some skills, capacities and unique ways to be able to express his balance, and after that, his creativity. Likewise, it is necessary to make connections between play and creativity, emphasizing that play is the child's first creative activity, that imagination is born and develops from it.

Creativity in the classroom

From the position of (Ccopacati, 2020), within the classroom, the teacher must be the facilitator for students to develop their criteria and ideas with total freedom, without fear of being wrong, thus facilitating himself all the necessary resources to achieve it, moving away from the typical traditional teacher, where the student's opinion is not taken into account, or has no validity; but treating them as unique beings, with the interest of looking for something new every day; in that, is the desired creativity.

The classroom should not continue to be compared to a prison cell, where most of the students attend forced and against their will; rather, it should be a space of joy that encourages the boy to be and feel there with his own will and with the desire to attend daily to learn new things with love. Teachers who are considered non-creative have a responsibility to learn to be creative, since if they do not, they will not be able to establish modern learning environments updated with new advances in science.

The teacher must know how to identify the previous knowledge of each student, know the reality of each one of them, to develop a successful class, where learning styles are involved. In the same way, it is good to remember that creativity is not exclusive to the subject of Cultural and Artistic Education, but to teachers of all specialties, since creativity is not only present in art (Nikolskaya, 2020).

Strategies to develop creativity

There are ten ideas that teachers should keep in mind in their daily work, to promote creativity in the teaching-learning process described by (Elisondo, 2018): Arrive with a good idea. That the teacher, having a broad knowledge of the cognitive capacity of the group of students in his charge, as well as of the curricular contents and the teaching tools, arrives at the classroom with proposals or creative ideas that enhance ways of thinking and own productions of each student; Looking at education from creative perspectives. Involve in teachers and students the diverse styles, approaches, and potentialities that they possess; this point also invites us to recognize the immense representation of thought, learning and creativity that exists in the school and student environment; Recognize the emotional sustenance of creativity. Here emotions are the key point

in creativity and learning; When there are emotionally reliable and safe contexts, creative ideas can be designed, and even unexpected questions will be resolved without difficulty; Expand potential interactions, recognizing the social nature of creativity. Interaction of teachers and students with other people in programs, trips, etc., as well as working or inviting specialists, teachers, researchers, among others, to the classroom, this serves to strengthen creativity within education; Promote mini creatives, possibilities of thoughts and questions. It is advisable to encourage dialogue within the classroom, and in it, the formation of questions related to the curriculum or social problems; recognizing the limitless potential of students to develop new thinking and interpretations; also promoting collaborative learning; Promote extracurricular activities and create learning opportunities outside the classroom. Work outside the classroom or extracurricular activities promote student learning by interacting with other people who may not be from the same social or cultural environment, but who greatly influence their cognitive process; and that at the same time encourage creativity in the student, stimulating their thinking and their divergent creations; Generate unexpected learning contexts and ruptures with traditional practices. Involve unexpected teachers in favorable contexts to develop and stimulate creativity; as well as incorporating surprising activities, or even visiting new contexts where the interest of the student is promoted, completely departing from traditional practices, which, in addition to boring the student, are not very effective; Propose tasks that enhance autonomy, self-regulation of learning and free choice of alternatives. It means that the teacher proposes tasks that develop the student's self-learning in the search for various alternatives to carry them out, recognizing the potential of each student in creativity and in the teaching-learning process. Promote interactions with different technological artifacts. The use of tics within the teaching-learning process is a primary tool that is here to stay and to facilitate schoolwork, adapting to both teachers and students. Its correct use favors the development of creativity and thought. Any teacher who does not know how to use this tool should find a way to train and learn how to use it, with the purpose of implementing activities in their planning that involve the use of technology, Work content from undisciplined perspectives. This final idea proposes to develop creativity through questions and problems that go beyond the disciplines and the curricular space, involving undisciplined aspects such as innovative forms of learning for the benefit of students (Muñoz-Muñoz & Barreiro-Vera, 2022).

Acquisition of cognitive

Skills Cognitive skills, about a diversity of mental processes that the individual develops in his evolution within the school, thanks to his contribution, the reality of the environment is noticed, solve the problems of daily life and relate to the surrounding people. It is therefore necessary for the learner to acquire these skills from an early age, having a close relationship with the information process, such as: attention, perception, memory, comprehension, which, not being acquired in time, will be a complex topic as the student advances in their school stage (Montiel, 2018).

Cognitive development

The human being acquires knowledge through learning and experience, therefore, both must be in constant relationship with the educational and social environment; also, it is worth mentioning that cognitive development is linked to the adaptation and integration of the human being in a natural way to his environment; not precisely to the IQ of each subject; Therefore, it is important to highlight that within the school (including the classroom) spaces for the exchange of knowledge between students must be allowed, as well as in their social environment (Ramón et al., 2020).

Thinking

Skills Thinking skills are those that allow the human being to establish relationships with both internal and external information, what he already knows with the new information that arrives; although, it is considered that they are not the whole for the academic formation of the student, therefore, they are born from the influence of the contents of studies and interpersonal relationships; where, since there is no correct connection with one of these, there may be shortcomings in the continuity of their subsequent studies.

These skills are relevant, because they influence the improvement of the performance of students to discover, solve, form, collect and recover knowledge, by developing these skills with greater emphasis, the greater the possibility of optimizing the intellectual production of students (León & Carpio, 2018).

Multiple intelligences in the acquisition of cognitive abilities

Intelligence is the capacity and potentiality of cognitive development based on problem solving in any situation of daily life. Gardner's multiple intelligences (linguistic-verbal, logical-mathematical, spatial or visual, musical, bodily-kinesthetic, intrapersonal, interpersonal and naturalistic) are the different ways of demonstrating multivariate capacities; due to the stimulating fusion of the two hemispheres of the brain as a transversal language from the integral development of each individual, reaching a maximum level of academic performance and applying them in their daily lives (Macías et al., 2021). By stimulating these intelligences in infants, they will have the possibility of becoming better people, purposeful and productive beings in a society that demands supportive, upright, and creative individuals; where, the teacher plays a very important role in the motivation and development of these intelligences in them.

Educational

innovation All innovation is related to change, that change that is required not only in the teaching work, but in its curricular planning in particular, where the teacher knows and experiences all those changes that life puts in front of him every day without fear of failure; and very specifically to globalization, where we are often more in contact with our immediate environment and with the beings that interact with it (Iglesias et al., 2018). Alluding to what has been said, when referring to educational innovation, it is not only necessary for educational institutions to have the most up-to-date and modern implements, but also for the teacher to be trained with the new trends that education or the modern school demands; this being an issue that concerns the main actors in education, because there is a large number of teachers who are little interested in innovating their knowledge and innovating the education they impart to students.

In these times of coronavirus, it is necessary to be highly trained in the technological field, with the use of the best tools available on the internet (Moreno, 2020), to achieve optimal teaching in students; the same, which will remain from now on with the teachers in the educational task facilitating the learning of the students.

The research was directed towards teachers, parents, students between 11 and 14 years old and the rector of the educational institution; According to the results obtained, those related to the variables under study were prioritized. Below are the graphs with the responses to the surveys addressed to teachers, students, and parents. With the question related to the planning of classes taught by teachers, with the use of eye-catching, eye-catching, and interactive teaching resources; it was possible to extract the following results consulted teachers, parents, and students shown in figure 1.

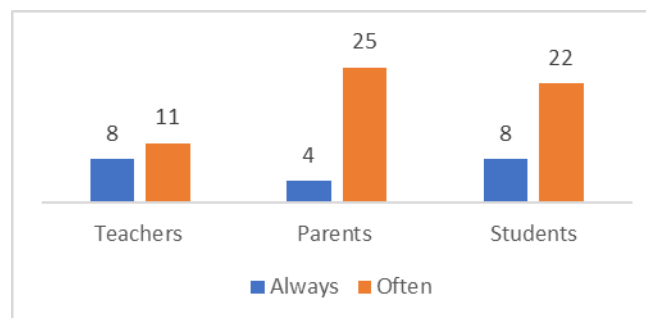


Figure 1. Use of teaching resources

As can be seen, only 8 teachers use eye-catching, iterative, and striking teaching resources, another 11 only apply these proposals often.

As can be seen, not all teachers plan didactic and creative courses, this shows how traditional teachings are still maintained. Regarding this question that was made to the teachers of the upper basic, to the fathers / mothers of the family and to the students of eighth, ninth and tenth basic year of the "Amazonas" Educational Unit, it was possible to verify that all those involved have answered with the highest percentage, that the teachers in the planning and execution of the classes, where it is often that they plan their classes with creative didactic resources; which means that there are difficulties for a student to develop creativity in the classroom, since a good teacher should always plan their classes with this type of resources, as pointed out by (Calderón, 2019), every teacher at the time of planning his class, apart from having mastery of his subject, must have sufficient creativity, at the time of including in it all the necessary innovative strategies that can be used in the context, that are related to both the students and the contents. It was valued to consult regarding the training of teachers to promote a greater application of didactic strategies that are innovative, the results are displayed in figure 2.

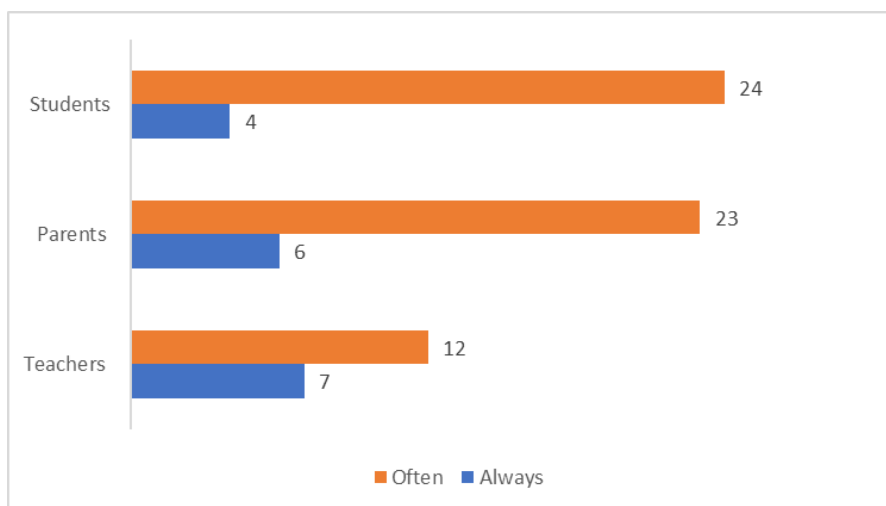


Figure 2. Training of teachers to promote a greater application of didactic strategies

In this question asked in the same way to teachers, parents and students, it was possible to see that, 12 of the teachers surveyed (figure 2), are aware that they often carry out training that encourages a greater application of innovative teaching strategies, especially in these pandemic times where work has been done virtually for two consecutive years; Likewise, 23 of the fathers/mothers of the family consider that ; the teachers of the upper basic of the educational institution are often trained in the application of innovative didactic strategies in the same way, 24 the students consider the same as the parents of the educational establishment.

Updating is a fundamental element within any institution or organization, even more so in the educational field, because it considers that teachers must be constantly updated, emphasizing the use of technologies, which is a process that is between teachers and will not back down (Rodríguez Vite, 2017). This being the new tool that each teacher will face from now on in their daily work, even more so when the student has used them during this period in virtual education. In the same way, with the question related to whether teachers apply activities that stimulate the development of students' cognitive abilities, the results shown in figure 3 could be known.

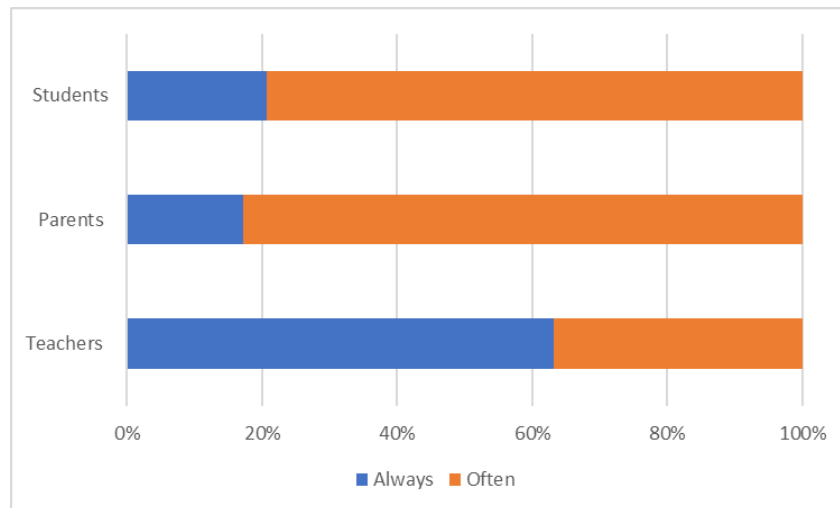


Figure 3. Teachers apply activities that stimulate the development of cognitive skills

In relation to whether teachers carry out activities that stimulate the development of cognitive activities in the survey of the actors involved and described above, it can be seen that teachers with 63% have responded that they always stimulate the development of skills cognitive of their students; while parents and students with a higher percentage (80% parents) and (77% students), express that they do it often. Therefore, it can be deduced that there are different types of responses, according to the convenience of each group. The teacher must take advantage of all the available time so that the child becomes a curious, investigative person, because he, little by little, actively develops his knowledge through stimulation as he grows (Vinueza, 2019). When a student is motivated in every sense of the word, he is always predisposed to carry out any activity, above all, doing his homework in the best way.

The brain is the most important organ, capable of absorbing, integrating and moving, responsible for thinking, acting and responding to stimuli from the outside world (Alcívar & Moreira, 2020), knowing this premise, what it mentions can be brought into context (Serrano, 2016) when he states that the development of creativity is threatened in many cases, by situations that the individual has experienced since childhood, whether these are positive or negative aspects; that in one way or another, they intervene in the teaching-learning process of the students; even at the time of choosing a profession or exercising any survival activity in adulthood. Being a very relevant factor to acquire new experiences that benefit everyone.

And from the position of (Telcán & Telcán, 2018), where he expresses that, at present, pedagogical strategies have been proposed that serve as a basis to enhance creativity, which at the same time allow them to positively consolidate the development of skills and abilities in students in the school environment. Delimiting the above, being realistic about what happens in the environment, in the city of Chone, in most of its public institutions such as the educational unit. "Amazons", students of all social levels attend to educate themselves in their classrooms, without underestimating many, this influences something, or perhaps to a great extent, as something negative, so that the student acquires these skills more easily.

It should also be noted that this issue has a lot to do with the quality of the teacher who works in these institutions, in the territory there are teachers who do their work for the love of a salary, but not, for giving an optimal education; and this is part of what could be analyzed with the results obtained through the surveys carried out.

Educational innovation is a topic that is treated with more complexity every day, even when everything everyday becomes routine, educational establishments seem to have remained solid over time (Medina, 2018). It should be noted that, the time has come when all teachers begin to reflect on our daily work, where technology is playing one of the important roles within education, teachers cannot stay stuck in time, but rather, seek innovation in all spaces, leaving aside the fear of failure and without letting adversities gain ground.

One of the purposes of this research is to make known to the community what is really happening, and how to be able to provide a solution of prosperity to the problem. From the position of (Moreira & Oñate,

2018), students currently have a low level of knowledge, due to not having developed their abilities and abilities, which prevents them from solving their daily problems. Alluding to what has been said, he has spent two years in confinement at home, receiving classes virtually due to the COVID-19 pandemic, where it is possible to ensure that the problem of creativity in the acquisition of cognitive skills has increased, and that, it is in our hands as true teachers, to look for the best solution for improvement; there are alternatives that can be put into practice, taking again as a reference to (Montiel, 2018), through reading changes are obtained both in the way of perceiving the world, and the relationship towards it through cognitive skills.

In the same way (Zurita, 2020), emphasizes that controlled teamwork and the use of interactive methodologies, where solidarity and understanding are promoted among its members through the participation of students in all school activities, favors the acquisition of cognitive skills involving creativity. It is suggested that teachers have an obligation to strip us of the traditional teaching model if we want to achieve meaningful and functional learning in students; moving away from long texts with difficulties of understanding, from memory strategies, exhibitions without reflection, etc., if in reality you want a total change in humanity and in its way of life.

4 Conclusion

The development of creativity favors students in the acquisition of new knowledge, in addition, it helps them to be more reflective and critical, above all, it helps them to solve the problems that life presents them in their daily walk. The stimulation of creativity and the development of cognitive skills, and the application of didactic strategies in the students, strengthens their development in the classroom; That is why the teachers involved in this research have difficulties in this area. The good teacher is one who is in constant training, especially in the current era where technology every day occupies an important space in society and in homes; being one more tool in the teaching-learning process. With the implementation and application of a guide of activities within the school curriculum, in which creativity is encouraged, the development of students' knowledge is further strengthened.

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