

# IMPACT OF THE SOCIO-CONSTRUCTIVIST APPROACH FOR THE ACQUISITION OF MATHEMATICAL COMPETENCE IN THIRD AND FIFTH GRADE ELEMENTARY STUDENTS

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## ABSTRACT

*The process of construction of competencies and specifically of mathematical competencies in the rural area requires a great deal of effort both for the student and for the teacher due to the many characteristics of the context, the interest in promoting the learning of mathematics in students of new schools. The fundamental objective of the research is to understand the impact of a socio-constructivist approach on the acquisition of mathematical competencies in third and fifth grades of primary school in multigrade groups in the rural sector.*

*For the development of the objectives, we resorted to the qualitative methodology of educational action research that allowed students to explore their educational conditions in the search and consolidation of their learning process. With the design and application of the proposal, it was observed that a modification in the process can significantly increase the acceptance of mathematics, given that it is largely rejected by the majority of students; in the same way, it can be established that students recognize the relevance of companionship, and specify this essential part in the learning process, as well as the importance of the social context to motivate learning. In general, it is necessary to argue that the field work carried out allowed for an enriching experience and the achievement of positive evidence of the socio-constructivist model within the rural multigrade school.*

**Keyword head:** Rural school, Escuela Nueva model, Socio Constructivist approach, Mathematical competencies.

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## 1. INTRODUCTION

The educational process has as function to transmit knowledge and contents that are destined to promote the development of the potentialities of the individual, according to [1] the education is considered the praxis, reflection and action of the man who has to transform the world, in the same way Vygotsky recognizes that the education is the potential development of the subject, and the expression and growth of culture, human, evidencing the transformative character that education has, it is necessary that this be assumed under any context, however, in the case that this is not considered adequately promoted will bring a number of problems associated with the quality of education. The research project carried out, presents the results of the institution under study, which is attached to a rural context, with difficulties in the process of adequate quality education, given the small number of teachers and communication services that do not weigh the needs of students, another factor evident within the school is the high number of multigrade classrooms which deal with the teaching of two or more school grades simultaneously, where it is also difficult to deepen the knowledge needed for each of the grades.

Eventually, given the educational processes carried out within the institution under study, it is recognized that the educational level of students is not in accordance with national standards, recognizing, according to [2] that this type of education does not have the capacity to ensure learning and the skills that children would like to have, and that it has a negative impact on rural schools. The results of the research are intended to analyze the impact of a socio-constructivist approach on the acquisition of mathematical skills in the third and fifth grades of primary school in multigrade groups in the rural sector.

The contextual conditions that permeate the educational process in rural schools require a type of differentiated pedagogy. In fact, this requires a strengthening of the program that is recognized as Escuela Nueva [3] that structures in the same way ways of reaching students with differentiated and multifaceted educational processes, that can be applied to a Multigrade School, which as [4] states are the majority of rural schools in the country. In fact, when analyzed in depth, these schools are recognized as being at a disadvantage when compared to urban educational processes, specifying that they face many economic and social deficiencies that indicate that they are institutions of very low quality.

This type of school model is framed in the socio-constructivist approach defined by Vygotsky who recognized that the higher functions of thought are part of a process of social interaction, in fact, according to [5] higher mental processes distinguish humans from animals, therefore, these are inherently social, and are mediated by the cultural context in which humans live, so Vygotsky recognizes that the subject is built from the environment in which it lives and the environment in which it is specified, not precisely because only in this case the human being is able to build superior psychological processes, through a system of conceptual tools that allows for the mediation of the internal and external world, having as a unique end of education the internalization of semiotic tools, and a mediated learning, where the teacher takes one of the reins of learning from new forms of communication and structuring of meaningful knowledge.

Considering that the constructivist educational approach is required, it is evident that it has the intention of creating communicative learning, where collaboration or cooperation is no longer understood as a final result, but as a balancing procedure, where a set of actions that promote development is recognized, it must always recognize the corresponding evolutionary differences, in this way cooperation is also a social process of construction that is presented in the activities of the youngest children, but that organized in an adequate way allows the establishment of links in students of any age.

It is specified that the Ministry of National Education [6] recognizes that significant learning proposes an active process that emerges from the interactions of students and their contexts, hence there is a great similarity between this process and the one proposed by Vygotsky, where this type of interaction has a relevant importance for the communication and negotiation of meanings.

In the formation of mathematical competence, it is established that this should be promoted with the intention of giving adequate results in international tests such as the Pisa test, which according to [7] evaluates three groups of competences within mathematical competence, these consist of problems of solution with a routine character, the connection that consists of the construction of models and solution of standard problems, and reflection is based on the formulation and solution of complex problems.

## 2. METHODOLOGY

The present research was conducted under the Qualitative research approach which is defined by [8] as the study that manages to provide depth to the data, dispersion, richness of interpretation, contextualization of the environment or setting, details and unique experiences, but also is evidenced as a fresh, natural and holistic methodology where research models are produced with flexibility.

This research starts with a real problem that occurs in the classroom and is related to the difficulty of acquiring "mathematical competence" in multigrade groups that use the new school methodology for the third and fifth grades of primary school. This difficulty is reflected in the results obtained in the Saber tests. For this reason, a methodology is being sought that will make it possible to improve these results and overcome these obstacles. The qualitative approach makes it possible to find, through its methodology, the main difficulties present in Escuela Nueva, which promotes the acquisition of mathematical skills and thus to seek teaching strategies configured in a methodological proposal based on the theories of social-constructivist learning.

Although the approach described in the proposal is qualitative because it focuses on the description of the phenomena mentioned, it is necessary to start the process from the difficulties present in the results of the tests to know in which the ISCE Synthetic Index of Educational Quality [9] is taken as a reference. This is a report given by the Ministry of National Education that provides in a statistical way the mathematical deficiencies of the educational institution for each of the competencies evaluated. In this way, one can say that one begins with a quantitative analysis in order to proceed with research with a qualitative focus. Likewise, one chooses to adopt a research design that is recognized as Educational Action Research, defined by [10] as "a family of activities that teachers carry out in their own classrooms for purposes such as: curriculum development, professional self-development, improvement of educational programs, planning systems, or development policy" (p. 23).

The research design that guides the proposal of pedagogical intervention is action research, since it is the design that best fits the needs of the work to be done in the classroom, in terms of the need to intervene in the academic processes to contribute to the development

of mathematical competencies in students who belong to multigrade groups and, furthermore, to improve the results of the saber tests. [10] "the research process begins with a general idea whose purpose is to improve or change some problematic aspect of professional practice; identifying the problem, it is diagnosed and then the hypothesis of action is put forward" (p. 41).

As for the sampling, it is specified that it is non-probabilistic and that it considers a total of 15 students enrolled in the third and fifth grades of primary school.

### 3. RESULTS AND ANALYSIS

To establish the main results that adhere to the research process it is necessary to note at first that it is necessary to establish an intervention proposal which was developed in three working sessions.

In the first session, the aim is to improve mathematical skills in the description of numerical and geometric sequences such as the prediction of numerical patterns. For this purpose, the third grade children have an adventure with one of the wildest animals in the region, they will have to help the alligator, an enigmatic animal that prowls the region eating everything it finds in its path, with the tasks it presents to them in order to save the animals from their farms and surroundings.

On the other hand, the fifth-grade children will focus on working in the fields with the workers and women in the kitchen. The students will have to help solve these problems that arise in their context, with the activities they will have to assume, design and even play with the purpose of giving solutions to the situations presented, in addition they will try to awaken interest in mathematics and the children will be able to discover how they can use them in everyday situations in their community.

For the second session they focus on one of the traditional activities of the institution: inter-class games. The students must help their teacher to organize the interclass games that focus on the 2019 America's Cup, but some problems are shown on the way and the children must resort to mathematical operations of composition and transformation to solve them. In this case, students must reason, assume and argue to solve the situations and organize the event. Here, students are expected to design strategies, communicate and interact to create solutions and have fun in the process.

In the third session, emphasis is placed on the properties of natural numbers, in this case students must work in teams and solve some puzzles (magic triangles mazes) that were adapted from usual games for each of the grades. In Table 1, the form of evaluation of these processes is presented, which are evaluated by means of rubrics that define a development in the levels of development of the competence.

**Table 1.** Levels of development of the Competence Indicators. Source: From [7]

	It identifies some relevant aspects of the situation, but without understanding it structurally. He needs the help of others to finish the task.
	Identifies relevant aspects of the situation and establishes their relationships by showing structural understanding of the situation. Builds an effective model to address the search for answers but makes some mistakes.
	Builds an effective model that reflects the meaning given by the situation and uses this model to make decisions using it properly.

In order to check the progress of this process, an evaluation heading is developed based on the previous levels, this has been adapted according to some indicators proposed by [7] such

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as team work, effort and responsibility, communication of the problem-solving process and problem solving. These indicators are adapted to the thematic axes worked on and are used for each of the proposals. In tables 2 and 3, the heading for the third and fifth grades of primary school is presented.

The evaluation of the research proposal is based on two sections: analysis of the proposal (describing the process and results obtained with the qualitative and quantitative supports) and the final inquiry (final interview) which seeks to interpret and analyze the students' appreciation of the work proposal.

**Table 2.** Sessions evaluation rubric. Third grade of primary school. Source: Adapted from From [7]

Levels	Level 1	Level 2	Level 3	Level 4
<b>Teamwork</b>	Does not get involved in group work and delegates all responsibility to the group	Is minimally involved in group work and assumes only part of his responsibility in the group	Involved in group work, but does not take full responsibility	Involves himself in group work and takes responsibility
<b>Effort and Responsibility</b>	He's having a hard time taking responsibility. It doesn't do the job. He doesn't make an effort	He often finds it difficult to do the job and take responsibility. He makes little effort.	It usually does the job. You rarely need to remind him of his job. He usually makes an effort	It always gets the job done. He doesn't need to be reminded. He makes a remarkable effort
<b>Information processing and organization</b>	It does not collect, interpret and organize information through diagrams or graphics.	You have difficulty collecting, organizing and interpreting information through diagrams or charts. He gets it with the help of others.	It collects, interprets and organizes, with some errors, the information through diagrams or graphics.	Collects, interprets and properly organizes information through diagrams or graphics
<b>Numerical sequences</b>	Does not identify an element in a given position following a previously established pattern	You have difficulty identifying an item in a given position according to a previously established pattern	Difficult to identify an element in a given position following a pre-established pattern when assisted by a colleague or the teacher	Identifies an element in a given position following a previously established pattern
<b>Geometrical sequences</b>	Does not recognize the first terms of a sequence from a previously determined pattern	Has difficulty recognizing the first terms of a sequence from a previously determined pattern	Recognizes with difficulty the first terms of a sequence from a previously determined pattern	Recognizes the first terms of a sequence from a previously determined pattern
<b>Additive Structures</b>	It does not solve routine additive composition and processing problems or interpret conditions necessary for their solution.	You have difficulty solving routine additive composition and processing problems and interpreting conditions necessary for their solution.	Difficulty solving routine additive composition and processing problems and needs help interpreting conditions necessary for their solution.	Solves routine additive composition and processing problems and interprets conditions necessary for their solution.
<b>Properties of Natural numbers</b>	It does not use operations or properties of natural numbers to establish relationships between them.	You have difficulty using operations and properties of natural numbers to establish relationships between them.	Difficult to use operations and properties of natural numbers to establish relationships between them.	Uses operations and properties of natural numbers to establish relationships between them.
<b>Communication of the problem-solving process</b>	It does not explain the meaning of the solutions proposed or the meaning of the data process and solutions obtained.	Explains, but with the help of his colleagues, the meaning of the solutions proposed, and the meaning of the data processing and the solutions obtained.	Explains with help on some occasions the meaning of the data, the situation raised, the process followed, and the solutions obtained.	Explains the meaning of the data, the situation raised, the process followed, and the solutions obtained
<b>Problem solving</b>	It does not autonomously solve problems related to learning that involve identifying, recognizing or constructing.	Needs help from a peer or adult to solve problems related to learning that involves identifying, recognizing or building.	Solves problems by asking for help at times related to learning that involves identifying, recognizing or building.	Solves problems autonomously related to learning that involves identifying, recognizing or constructing

**Tabla 3.** Rubrica de evaluación Sesiones grado quinto primaria. Source: Adapted from From [7]

Levels	Level 1	Level 2	Level 3	Level 4
<b>Teamwork</b>	Does not get involved in group work and delegates all responsibility to the group.	Is minimally involved in group work and assumes only part of his responsibility in the group.	Involved in group work but does not take full responsibility.	Involves himself in group work and takes responsibility.
<b>Effort and Responsibility</b>	He's having a hard time taking responsibility. It doesn't do the job. He doesn't make an effort.	He often finds it difficult to do the job and take responsibility. He makes little effort.	It usually does the job. You rarely need to remind him of his job. He usually makes an effort.	It always gets the job done. He doesn't need to be reminded. He makes a remarkable effort.
<b>Information processing and organization</b>	It does not collect, interpret and organize information through diagrams or graphics.	You have difficulty collecting, organizing and interpreting information through diagrams or charts. He gets it with the help of others.	It collects, interprets and organizes, with some errors, the information through diagrams or graphics.	Collects, interprets and properly organizes information through diagrams or graphics.
<b>Numerical sequences</b>	It does not order numerical sequences according to ratios greater than and less than.	You find it difficult to order numerical sequences according to ratios greater than and less than.	Orders with difficulty and help from peers or an adult numerical sequence according to greater than and less than.	Sort numerical sequences according to ratios greater than and less than.
<b>Geometrical sequences</b>	Does not identify patterns in numerical and/or graphic sequences.	You have difficulty identifying patterns in numerical and/or graphic sequences.	Identifies with difficulty and help from peers or teacher patterns in numerical and/or graphical sequences.	Identifies patterns in numerical and/or graphic sequences.
<b>Additive Structures</b>	Does not solve routine and non-routine additive processing, comparison, combination and matching problems or interpret conditions necessary for their solution.	You find it difficult to solve routine and non-routine additive processing, comparison, combination and matching problems and to interpret conditions necessary for their solution.	Solves routine and non-routine additive problems of transformation, comparison, combination and equalization with difficulty and needs help to interpret conditions necessary for their solution.	Solves routine and non-routine additive processing, comparison, combination and matching problems by interpreting necessary conditions for solution.
<b>Properties of Natural numbers</b>	It does not describe or interpret properties and relationships of numbers and their operations.	You have difficulty describing and interpreting properties and relationships of numbers and their operations.	It describes and interprets with difficulty properties and relationships of numbers and their operations.	Describes and interprets properties and relationships of numbers and their operations
<b>Communication of the problem-solving process</b>	It does not explain the meaning of the data, the situation raised, the process followed, and the solutions obtained.	Explains, but with the help of his/her peers, an adult explains the meaning of the data, the situation posed, the process followed, and the solutions obtained.	Explains with help on some occasions the meaning of the data, the situation raised, the process followed, and the solutions obtained.	Explains the meaning of the data, the situation raised, the process followed, and the solutions obtained.
<b>Problem solving</b>	Does not autonomously solve problems related to learning that involves identifying, recognizing or constructing.	Solves, but with the help of peers or an adult, problems autonomously related to learning that involve identifying, recognizing or building.	Solves with a little help problem autonomously related to learning that involves identifying, recognizing or constructing.	Solves problems autonomously related to learning that involves identifying, recognizing or constructing.

The analysis of the information is presented in three sections: analysis of the instruments in the initial phase, processes and analysis of the research proposal, and final inquiry. First,

the analysis of the instruments applied is carried out in order to identify the main difficulties in the acquisition of mathematical skills in the third and fifth grade of primary school.

It is observed that the change of a student, to the new school, determines that effectively the transfer is recognized as a necessary process for the promotion of the process of educational quality. As for the specification of the mathematical conditions, it is found that in general the students consider that the learning process is much more significant in the process of construction of mathematical competencies, than the students who have presented themselves in advance, this being one of the best conditions that have been proposed.

The quantitative answers given to the questions of the questionnaire show that in general there is a much higher understanding of the area of mathematics in both the third and fifth grades, and that there are no students who refer to a null or relatively minimal understanding. In the same way, it is recognized that students consider that with the new form of learning that has been implemented, the resolution of problems posed as part of the educational process is greatly improved. In this way, it is understood that the described percentage of 75% is modified to a great extent in students of the fifth grade of primary school, who establish that in reality the process has not been completely excellent, but neither is it useless.

Likewise, students, through the a priori process to the training process that is implemented, specify that the form in which they are released at the time that they do not attend class is to establish contact with the teacher and with their peers, and therefore also of the systematic study of multiplication tables, since these are the main programmatic content seen in these areas, when students recognize that the subject has been little understood by asking the teacher, thus denoting that there is an adequate level of communication.

In general, it can be specified that in collectivism, students consider that their classmates are a support for increasing knowledge, in the same way that they recognize that these are part of their educational process, specifically when the teacher is busy. Similarly, it is recognized that they are very attracted to receiving help from their peers, both in the third and fifth grades.

As for the explanation of the area of mathematics, it can be seen that most students state that the subject is given for better understanding, since it is explained in detail in this way, more and more learning processes have been evoked that evoke the construction of significant learning. As for the relevance of the subject, they recognize that these are fundamental for the life of any person. They also specify that the problems are increasingly difficult to solve, which means that without the process of building adequate knowledge, they will face situations that they cannot solve over time.

The first session process shows that the average of all indicators does not exceed level 3, which indicates that most students need help from a more capable person to solve their concerns and present errors in the resolution of tasks. The only indicators that surpass level 3 are effort and responsibility for both grades and treatment and organization of information in the third grade of primary school. In this grade, it can also be seen that students are a little apathetic to teamwork and prefer to receive help from the teacher.

In the same way, problem-solving communication presents problems; in fact, this indicator is below level 3 for both grades, which means that they can only do so with help. In this situation, questions should be established to guide the student in establishing the appropriate sequence or numerical pattern for the resolution of the tasks. In this session students are shy about giving their arguments and sometimes doubt them, it is easy to change their minds. For third grade, in the homework where they are asked about the activities they should do before going to school, it is very easy for them to answer and it is there where they start to show motivation to solve the tasks, some children argue that they should fix their

room and personal things, some even indicate that they should feed the animals on their farm; fifth grade students are motivated by this type of questions, which are not asked in their homework, but it is of their interest to participate in the conversation to indicate that they also do some extra activities before going to school.

The communication of processes, whether verbal or written, is difficult for students. Fear of making mistakes makes children unwilling to give their arguments; in some cases, students are asked to write down their answers, and they find the same arguments; some children do not know how to explain the meaning of the data, the situation presented, the process followed, and the solutions obtained. It is necessary to explain and guide the children with many questions.

In the evaluation of the competencies they have up to now, it is specified that the level of competence for both grades is below 3, which means that they need the help of a partner or an adult to solve the assigned tasks, some students prefer to wait for the other children to do the activities so that they can start from some situation, it is clarified that it is important for the child to be autonomous in their responses but they can actively participate with their classmates to reach the solution. As for the contents, they have not been reached by most of the children and have been achieved with the help of others.

The average of the indicators of competence for the contents of sequences and numerical patterns is below 3, in this case it can be seen that, for fifth grade students, it is difficult to identify patterns in numerical and/or graphic sequences, some students manage to establish a rule or numerical pattern, but with the help of the teacher and establishing many questions to guide them. Peer work was essential in solving these problems and students who agreed to receive some help managed to develop the activity.

As for the process of results of the second session where the students had to apply their basic mathematical knowledge, it is stated that the indicator that is above the others is that of effort and responsibility, these results are associated to the motivation that the children have to solve the tasks since they feel very excited to collaborate in the organization of the inter-class games. In terms of teamwork, the level rises compared to the first session, students learn to trust more in the criteria of their peers and to cooperate in the work. Similarly, it should be recognized that in general teamwork has adequate weights, hence the student finishes the activity and seeks to make a comparison.

It is also noted that the indicator is shown below level 3 for both grades. For the third grade of primary school, it is shown that this level rises in comparison with the first session. For the students it is a little simpler to explain how they solve the tasks and they can communicate verbally that they used different addition and subtraction operations to develop the activities; it is necessary to help them in the process because some operations are done without analyzing the given situations. By the fifth grade, something similar happens, students can communicate verbally the operations used, but they do not clearly distinguish which of them they should use, so it is necessary to help them with several questions to realize the type of transformation that happens in this case. It can be established from these results that the students can easily talk about their interests and in terms of the development of the tasks within this context they communicate verbally to explain their procedures whether they are correct or not; with the help of the teacher they can be guided to arrive at the appropriate answers.

In terms of problem solving, it is evident that even with the implementation of the proposal, the indicator shows that students are still below level 3, which means that they need help to develop the activities; it is necessary to establish clear questions so that they can organize their ideas. It should be clarified that this session shows an improvement in terms of the creation of strategies in which they propose the operations to be carried out, errors are



presented in terms of the type of structure that should be carried out and it is there where the teacher should intervene to clarify some doubts. In grade 3 the tasks consisted of 6 problems (3 of composition and 3 of transformation), the strategies they used were based on addition and subtraction; some tasks were very simple and they developed them by counting with their fingers while with others they decided to capture the operation on a sheet. Some children had difficulty in understanding the problem and made mistakes when writing down the amounts, it was necessary to intervene and help the children realize their mistakes and ask them to read the problem several times before solving it, then they are asked to create solution strategies.

According to what was evidenced, it can be established that for both grades it was easier to solve composition problems since they were adapted to an addition or subtraction that was easier to identify, while transformation problems caused them confusion because they were not clear about how to handle the variable of change. It is necessary to intervene and ask the students to read the problem several times and generate strategies that are discussed with their peers.

For the last session, students had to apply their mathematical knowledge to solve the puzzles posed. The children had to experiment, conjecture, communicate, reason and discuss with their peers to establish points of view. In this case the students discover the decomposition of numbers into their prime factors and build by themselves strategies that allow them to solve the tasks outlined. It can be observed that the average for all the indicators is above level 3. These results show that the group of students gives better effects in the development of the activities, the motivation in front of the resolution of the tasks is notorious and it can be seen with the indicator of effort and responsibility that is kept above 3.

It is observed that the students of the primary group felt pleasure in developing the activities within the cultural and work context of their parents, for them it is important to be able to be useful in their homes and with this type of task they felt motivated to solve them. With this first activity, they corroborate that they think that mathematics is important, but they can also establish specifically in which situations in the community and in their homes, they can apply it.

The students do not prefer any specific activity of those proposed, but it is observed that their preference is given according to their personal interests or tastes. Some children prefer to solve activities oriented to field work, which is what they know or do against the clock, others those related to football or dance, while some prefer those where they have levels of difficulty and must put their mathematical skills into play.

The students at the beginning of this research had initially determined that mathematics was useful for solving life problems, but they were not clear about what kind of problems. Therefore, it can be deduced that they had heard those statements from their parents or teachers and they repeated them, but according to the previous answers, it can be seen that the students already have a reference of the application of mathematics, so that places or context can be applied and why it is so important to learn it. At the end of the intervention with the students for the application of the didactic proposal, the students showed a positive attitude towards the proposed activities, as can be seen from the previous answers.

#### 4. CONCLUSIONS

The objectives established in the first moment in the investigation are achieved and the obstacles that students have for the acquisition of mathematical competences are determined through the initial diagnosis, a positive perception of students towards mathematics is observed, students show a lot of interest in learning; but this taste fades away due to several aspects: the lack of family stability that has led them to lose the educational processes, the

students who have moved feel that their learning has been affected since adapting to the change in methodology has cost them a little and has generated an impact on their learning, as opposed to the motivation to learn the students show that this has been lost since solving class problems does not make sense because they do not find the application in their context or it is not of their personal interest.

As for social interaction, they are somewhat apathetic to collaboration among peers, presumably due to the distrust generated by the learning they have and, in the belief, that it is the teacher who is best able to advise them. The students consider that the problems they solve in class are not to their liking according to the answers found. It follows that this is since they are not contextualized and are limited to solving exercises in a mechanical way that are solved only by learning the basic operations. The mathematics classes do not seem very pleasant to them, but they were adapted to the work by means of guides applied by the teacher. The previous aspects were overcome, after the application of the methodological proposal based on the socio-constructivist approach and through the final inquiry.

During the design of the proposal, which is the second objective of the research, it was observed that the analysis of the context allowed for the generation of ideas to build an adequate strategy for student learning. The design of the proposal became a challenge that allows me to evaluate the profession we have as teachers, the importance of planning, doing and evaluating practices within the classroom, for this was necessary self-training in the knowledge of the new school methodology, mathematical skills and of course in the socio-constructivist approach that is the basis of the design, all this with the intention of improving student learning and see if it could improve the acquisition of mathematical skills.

The activities proposed reflect this idea, since the students were looking for different strategies to solve the tasks proposed. It is worth noting that the effort was much greater when they knew that the tasks were proposed based on their own stories or interests. It is also evident that the students have many deficiencies in terms of content, which is why teamwork was important, since in the resolution of the tasks they learned to share their ideas and generate strategies that were later corroborated by the teacher.

The tools for socio-cultural interaction proposed are the community's own stories, the opening of inter-class games and hobby games. These tools allowed the students to learn to develop confidence in their learning and that of their peers, the use of language was important since communication is more fluid among them and many students with difficulties learn from what their peers propose to them.

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