EDUCATING
WITHOUT STEREOTYPES, KEY TO SAVING DREAMS IN THE TEACHING-LEARNING OF
MATHEMATICS

EDUCAR SIN ESTEREOTIPOS, CLAVE PARA SALVAR LOS SUEÑOS EN LA ENSEÑANZA-APRENDIZAJE
DE LA MATEMÁTICA

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ABSTRACT

The investigation carries out an analysis of what the appreciations of the teachers are regarding gender representation, the environment of the teaching of Mathematics, knowing which ways are lived from the teaching practice and perceiving the cultural and social precepts that lead to their responses, as well as to examine the classroom impact around the entire teaching-learning process of mathematics. The issue of gender is a topic in which the entire society is permeated, even more so, if it is approached from the educational-instructional procedure of mathematics; where teachers and students are the leading role of the process. It is intended with this presentation, a framework of equality between them in the world of mathematics, where the differences are only physical, and never in the fulfillment of duties - opportunities - possibilities to teach and learn mathematics since the teaching of Mathematics has been influenced by the presence of certain stereotypes that have determined the behavior and affected the performance of the students in this discipline. Various investigations have pointed out the inequitable relationship that students have regarding mathematics and the responsibility that the teacher in its construction has. This raises the need to draw up actions that allow the construction of equitable relationships in this discipline, based on the principles of respect, solidarity and mutual aid between genders.

Keywords:
Teaching - learning, mathematics, gender.

RESUMEN

La investigación realiza un análisis de cuáles son las apreciaciones de los y las docentes referente a la representación de género, entorno a la enseñanza de las Matemáticas, conocer cuáles son los modos que se viven a partir de la práctica docente y percibir los preceptos culturales y sociales que conllevan a sus respuestas, así como examinar el impacto que se tiene en las aulas alrededor de todo el proceso de enseñanza - aprendizaje de las matemáticas. El tema del género, constituye una cuestión en la que se ve calada toda la sociedad, aún más, si es abordado desde el proceder educativo-instructivo de las matemáticas; donde los docentes y estudiantes son los protagonícos del proceso. Se pretende con esta presentación, un marco de igualdad entre ellos en el mundo de las matemáticas, en donde las únicas diferencias son solo físicas, y nunca en el cumplimiento de deberes - oportunidades - posibilidades para enseñar y aprender las matemáticas ya que la enseñanza de las Matemáticas se ha visto influenciada por la presencia de ciertos estereotipos que han determinado el comportamiento y afectado el rendimiento de los/las estudiantes en dicha disciplina. Diversas investigaciones han señalado la relación de inequidad que los estudiantes y las estudiantes poseen respecto a las matemáticas y la responsabilidad que el/la profesor/profesora tiene en su construcción. Lo cual, plantea la necesidad de trazar acciones que permitan la construcción de relaciones de equidad en dicha disciplina, basadas en los principios de respeto, solidaridad y ayuda mutua entre los géneros.

Palabras clave:
Enseñanza - aprendizaje, matemáticas, género.
INTRODUCTION

The interest in the study of attitudes and their determinant role in learning in the field of mathematics has been the subject of research for more than 50 years, with gender differences being one of the quite debated topics. It has been shown that gender stereotypes transmitted in school institutions affect the academic results of female students, who show low self-esteem in their aptitude to learn mathematics, which can be explained, in part, by the gender representations of male and female mathematics teachers.

In the school environment, gender stereotypes are expressed in many ways, some more evident than others. They are in mathematics textbooks that overshadow or exclude achievements and stories featuring women, in teachers who patronize female students while demanding superior results from male students, in the rejection of students who do not conform to the socially accepted norms for one gender or another, in a language that tends to make female students invisible by using the masculine to refer to the plural. In this sense, the examples accumulate, and almost always the disadvantaged female students.

According to a study conducted by American Association of University Women (AAUW), prevailing system in many societies voluntarily discourages little girls and girls from developing interest in mathematical science and other academic subjects.

These behaviors, experts indicate, are usually justify by stereotypical perceptions according to which independence and intelligence are incompatible with femininity. Such ideas have a direct impact on the education of younger girls, who sometimes limit their abilities and slow down their development in an attempt to fit in.

One of the results found by research (Bishop, 2000) in which there have been the greatest coincidence is the difference found in terms of attitude towards mathematics depending on gender of the student.

These studies also examined affective or attitudinal variables and beliefs identified as critical about the usefulness of mathematics and the confidence in its learning, in which it was found that men were more confident than women and believed that mathematics was more useful for them than for women. This idea remains in more recent studies and not only in the opinion of female students, since it has been seen that students of both sexes consider that male students, more than female students, need mathematics for their adult life and to get good jobs. Moreover, both males and females expressed that the former like mathematics more and find it easier. Female students tend to find mathematics boring and difficult to a greater extent than male students (Brandell, 2008), and are less self-confident in the subject (Goetz, 2007). Male students, on the other hand, show considerably more pleasure and pride in relation to mathematics, as well as less anxiety and despair about it. Likewise, they feel more motivated both extrinsically and intrinsically to face this subject (Linn, 2010).

It was also shown that, to the extent that women give away to gender stereotypes, this may be an indicator of a general belief in the legitimacy of status differences between the sexes. Most importantly, both studies emphasized that acceptance of such stereotypes is negatively related to women's self-concept and to the intentions to college studies, and make them more susceptible to the stereotypical effects of threat on their performance toward mathematics. This may lead to the assertion that the acceptance of such stereotypes may be an important variable in explaining or understanding the lower levels of women's participation in mathematics-related fields.

On the other hand, teachers, playing a vital role in the recognition of high mathematical abilities in their students in the classroom, have been the subject of several investigations. Some authors state that there is undeniable evidence that students receive more attention from teachers and higher quality instruction than female students (Flores, 2007; Cabezas, 2009). In addition, the teacher is one of the main actors within the school institution that reproduces the gender norms that govern life in society.

In relation to expectations, a precedent of greater relevance in the school environment is the work of Jacobson with his book “Life in the Classroom” and Rosenthal with the Oak School experiment, who proved how teacher expectations determine student performance, giving rise to the well-known Pygmalion effect at the end of the 1970s.

In the case of women, several studies report that in areas of knowledge such as engineering and exact sciences, there is a marked underrepresentation of women, whether studying or practicing professionally (United Nations Educational, Scientific and Cultural Organization, 2003).

Cuba is not exempted to these realities; several studies show that in the school environment of the country, practices that accentuate gender inequities are reproduced. According to Salas (2018), they are expressed in “a system that is exerted on girls and adolescents, by adults in the educational community, so that they fulfill with expectations associated with traditional gender roles.” She also explains that in the case of students, there is a reinforcement of hegemonic masculinity patterns, hindering other forms of expression.

Meanwhile, Ojeda (2015), argues that the very organization of life in educational institutions tends to “constrain the formal and informal roles assumed during activities and stimulates modes of behavior and communication based on competition, subordination and power asymmetry”. This is evident in texts, posters, television programs,
In equivalent, roles assigned to each student in the classroom based on their sex persist, apparently normal stereotyped practices make up what experts know as the hidden curriculum, which legitimizes the sexist patterns of society and the family, among which are those of: García (2021); Naranjo et al. (2021), which refers to incidental, social and cultural learning where the exercise of power, reproduction and resistance of individuals, which is not explicit in formal curricula, are of fundamental importance.

Marked by the influence of these and other stereotypes, students may suffer loss of self-esteem and self-confidence and altered physical and mental health, resulting in lower school achievement, school dropout, development of aggressive behaviors, among other manifestations.

Learning to identify gender stereotypes that are validated daily in educational institutions and assuming them as a conflict to be faced is an urgent challenge for Cuban education, where, from mathematics, it is possible to contribute in an active and creative way because its contents allow addressing a better world in transformation; for this it is necessary a systematic, permanent and coherent work with the teachers of this area of knowledge.

Besides, it is necessary to favor attitudes and behaviors of equality that break the dominance-submission binomial and transform stereotypes, in order to achieve equality and a change of mentality that prevents gender violence. This is not an easy task, but, fortunately, it is not necessary to start from scratch since in Cuba the care and protection of children is a reality in all spheres of life, for the treatment of these issues the Ministry of Education establishes programs, manuals, pamphlets and books for teachers related to gender education and equality, however, there are still challenges to face discrimination and violence in educational institutions, which from this author’s perspective, it is urgent to consolidate educational strategies from the teaching-learning process of mathematics that promote such practices.

In this sense, Perdomo (2009), points out that scholars on the subject of gender and mathematics defend the need to develop an equal education focused on the transmission of alternative values that do not show this discipline as a closed and complete set of knowledge. Certainly, mathematics has its own style of reasoning that enables the development the logical thinking, which traces guidelines towards reflection and decision making. The briefness of expression, the process of reflection structured with accuracy, the absence of logical leaps and the accuracy in symbology are characteristic of this way of thinking. In mathematics, it is endeavored for optimal agreement with a logical-formal scheme. The mathematical style of thinking makes it possible, to the highest degree, to control the accuracy in the thinking process.

So, what is it said about the ability of women to teach, but not to learn mathematics? Historically, this is another of the assumptions, biases and prejudices that plague education, since the thesis of the intellectual inferiority of women, argued since Aristotle and based on biological assumptions, have been around for a long time and is still present today.

Faced with such an assertion, and after reflecting on different researches it is inquired more in depth about the interaction of women in this field finding Perdomo (2019), who contrasts the previous assertion pointing out different women who have excelled in the scientific area with emphasis on mathematics, among them: Hypatia, women dedicated to astronomical computing in the scientific revolution, Sophie Germain, Mª Gaetana Agnesi, Ada Lovelace, or Mary Somerville are just some names of outstanding women mathematicians who leave doubt to the set of assumptions, biases and prejudices that plague society by confirming with research that mathematics is related to gender differences.

In this regard, Salvador & Molero (1991), indicate that it is important to make society see that there is no biological cause that determines a gender difference, since any girl, being convinced that a biological cause is unalterable, would easily give in to difficulties.

To better understand gender, it is necessary to know its characteristics according to Romero et al. (2017), they are synthesized in:

- It is ubiquitous (it is everywhere at the same time).
- It is hierarchical.
- It is cultural
- It is relational.
- It is contextually specific.

Knowing these characteristics, it is possible to move through the understanding of gender theory, which leads to an analysis of the relationships established between both sexes until reaching what has been accurately called the gender approach. It is not possible to mention this term without appealing to the well-known equity through which it is aspired to a shortening of the wide space that still exists in relation to the equality of opportunities of each person from their capacities, potentialities and talents without the discrimination generated by belonging to a sex, gender, race, social class, religion, age, among other aspects that could differentiate them.

Another aspect to be valued refers to the meta-analysis carried out by Beltrán (1987), about the traits and...
characteristics to which teachers pay attention when forming their expectations, he points out the following:

- The physical attractiveness of the student is a factor that influences the teacher's expectations, both in his academic performance and with respect to social relations, only at the beginning, since later other aspects ratify or rectify his expectations.

- The student's sex does not determine the formation of academic performance expectations, although it does with respect to social relations.

- Social class constitutes one of the most important bases in the formation of expectations on the part of the teacher, especially when the analysis is carried out in the classroom.

- The student's behavior clearly influences the formation of the teacher's expectations, both of his academic performance and of his social relations.

According to research, after the evaluation of these characteristics, the teacher behaves more or less unconsciously according to his or her judgments, that is, the teacher has a differential behavior in relation to the type of expectation that has been created; thus, he or she tends to favor certain students or groups and to disadvantage others.

In works from the Cuban research field, authors such as: Brown & Josephs (2001); Vidal (2002); Rodríguez (2006); Coronado et al. (2012); Romero et al. (2017); carry out studies on gender from different perspectives. Their assessments are valid for the research, regardless of the contributions made by them, the analysis to the referred works allowed revealing that the existence of methodological tools, which allow teachers to give treatment to gender equity through the teaching-learning process with the purpose of contributing to the improvement of the ways of action of university professors and the subsequent work with students to transmit knowledge and values that promote greater social justice, are not sufficient. Mathematics, in particular, is not exempt from this deficiency.

This work answer back, to one of the purposes at the global level, which is to achieve the 2030 Agenda for Sustainable Development, especially Sustainable Development Goal 5 (SDG 5): “Achieve gender equality and empower all women and girls, and all other SDGs that depend on Science, Technology and Innovation (STI) capabilities, which implies increasing the scenarios and participation of women in science and technology education, and encouraging from science education a greater participation of women at all levels of education, and providing equal opportunities for different careers” (United Nations Organization, 2015), including mathematics.

MATERIALS AND METHODS

The research on gender analysis with mathematics management at the University of Holguín, as well as the interest in determining whether gender stereotypes affect the academic results of female students and the design of pedagogical proposals for equity, gave rise to this research work. This exploratory and descriptive research presents mainly quantitative methodology and performs a qualitative analysis of part of the sample, corresponding to interviews with professors reflecting on their teaching practices.

To analyze the information, 6 classroom interactions were observed and variables were coded to describe aspects related to the behavior of male and female students. Subsequently, these variables were analyzed together with other variables already coded as part of the work. Finally, the interviews with participating professors were analyzed by means of a content analysis and it was identified how they associate and highlight characteristics for their female and male students.

The research required a documentary review of related topics (gender in education, gender differences, mathematical skills, among others) dealt with in different research studies, reports and articles that have been carried out, with the aim of highlighting the problem, analyzing the extent to which the differences exist and investigating the factors that define them and the arguments that support them.

It should be noted that the participation of mathematics professors was voluntary and that the decision to analyze gender gaps in their classrooms and in the interviews in the analysis sessions is because the results that will be presented effectively reflect how professors and students behave and how the former refer to and associate characteristics based on gender.

In order to address the objective whose purpose is to identify how mathematics professors identify, associate and/or highlight the characteristics of their students according to their gender within the mathematics classroom, a survey was conducted, which revolved around topics related to gender.

RESULTS AND DISCUSSION

The presentation of the results that will allow to determine whether there are gender gaps within the mathematics classes at the University of Holguín will be presented in the following order:

The discussion sessions with professors who teach mathematics revealed gaps in gender imaginaries, forms of interaction, roles and personal narratives that teachers deploy in relation to their male and female students within the mathematics class, the way in which professors conceive their students based on gender operates as opposing identities, with men's identities being valued in the context of mathematics and at the social level, as
opposed to women’s, who are also made invisible. These differentiated interaction patterns, together with the stereotypes present in the culture, have an impact on students’ beliefs, self-esteem, performance and self-efficacy.

Likewise, the language used by the professors in the sample to refer to their students is mainly composed of masculine generics, which implies a perpetuation of gender inequality within the classroom and, in the context of mathematics, may imply the existing feminine underrepresentation in the areas.

The discussion sessions also showed that professors are aware of the overbearing attitudes presented among students. This identification may allow them to mediate their students’ interactions in order to create an equitable classroom in terms of developmental possibilities for all students.

On the other hand, the classes observed showed the presence of differences in the interactions generated by students of both genders, where female students showed less initiative to begin the interaction with the professor. However, female representation greater than 50% within the group was configured as a variable that explained a higher probability that a female student would take the initiative and, likewise, that the female student would participate in the interaction.

The data collected through observation allow identifying some aspects of educational practice that are the backbone of gender-equitable classroom practices. These are related to class participation, which translates on the part of the teaching staff into the choice of those who participate, to whom specific invitations are made to participate, with whom they establish contact, to whom they listen attentively, what the time given to students to give answers is and, on the part of the student, in who are the ones who want to speak.

Regarding the number of statements, such as questions asked by the professors to the students in the class, the largest number of this type of statements was directed to the students in the class, while the smallest number corresponded to the female students.

In relation to the participation of male and female students during class and the professor’s incentives to promote such participation, the female professors are mostly the ones who ask the students to speak; they make specific invitations to the female students and listen attentively to the female students, guiding their mathematical learning through specific questions.

Male students are more verbally active in teachers’ classes. Female students are less active with male teachers than with female teachers.

In this context, although differences are identified on the part of female and male students in the classrooms studied, a strong reproduction of gender gaps is not observed. Rather, the interviews with professors report a stereotyped image of men and women.

Due to this, it is possible to promote changes to generate a gender-equitable mathematics classroom, so a strategy that incorporates the gender approach in the training of student teachers and teachers working at different levels and modalities of education is suggested, in order to generate a cross-cutting cultural change that overturns the biases and stereotypes linked to the teaching-learning of mathematics.

![Figure 1. Number of students able to learn mathematics by sex.](image)

Seventy-nine percent mentioned both (Figure 1), 13% said the students because “by habit students are more visible” and “it is rare that there are students who have a taste for mathematics”; 2% said the female students; assigning it to characteristics socially attributed to the female gender; “female students because they are more empathetic and have more patience”. The remaining 6% omitted the answer.

Then, to conclude, the question: Are female students apt to learn the subject?

![Figure 2. Students apt to learn the subjects.](image)
In which the answers are in contrast with the percentages obtained in the previous question; since 42% affirm that they are (Figure 2), since, among the assertions it is said that “They have the same mental capacities as male students”. The remaining 8% omitted the answer. And to conclude, 87% consider that the results obtained are the same when learning mathematics by a male or a female, but 13% give a no as an answer, exemplifying “They toy ideas that they would learn better from a male, since in my academic preparation I always had pure mathematics teachers since they were considered to be more intelligent”.

Regarding the gender representations present in mathematics classes, the data analyzed after observing 18 mathematics classes, allow identifying aspects of educational practice that are of essence in the practices with gender equity in the classrooms where the subject of mathematics is taught, this translates on the part of the teachers into the selection of those who participate, to whom specific invitations are made to participate, with whom they establish contact, to whom they listen attentively, what is the time given to the students to give answers and, on the part of the student, in whom they ask for the floor.

It is evident in the activities observed that among male and female teachers there is a tendency to use masculinized teaching language, which is an instrument of the hegemonic culture that strengthens the differences between genders. It was observed that they tend to address the students and not the female students during class, which was also observed in one of the female professors. Direct implications were observed in the participation, fundamentally in the frequency, shown by the students in class.

Both the number of statements and the questions asked by the professors to the students in the class, the majority of this type of statement was directed to the students in the class, while the smallest number corresponded to the female students.

In turn, in relation to the participation of the male and female students during the classes and the encouragement given by the professors to promote such participation, the female professors are the ones who mostly ask the male and female students to speak, they make specific invitations to the female students and listen attentively to their students, guiding the mathematical learning with specific questions.

As for the time allotted to give answers, they are the female professors who facilitate more possibilities for the male and females students themselves to discover and construct their own learning. During the observation, it is evident that the female professors are more alert to the questions, answers and work of the students in the development of the mathematics classes. The students are more active verbally in the classes with the professors and the female students are less active with them.

Table 1 below shows the words referring to the total number of students by male and female teachers.

<table>
<thead>
<tr>
<th>Words</th>
<th>Counting</th>
<th>Weighted percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>37</td>
<td>35,24%</td>
</tr>
<tr>
<td>Student</td>
<td>4</td>
<td>3,81%</td>
</tr>
<tr>
<td>Peers</td>
<td>10</td>
<td>9,52%</td>
</tr>
<tr>
<td>Boys</td>
<td>2</td>
<td>1,90%</td>
</tr>
<tr>
<td>Young people</td>
<td>4</td>
<td>3,81%</td>
</tr>
<tr>
<td>Students</td>
<td>2</td>
<td>1,90%</td>
</tr>
<tr>
<td>Student</td>
<td>1</td>
<td>0,9%</td>
</tr>
</tbody>
</table>

Based on the results obtained, it can be visualized that the fact of being male or female is a determinant in the context of learning mathematics, since the gender perspective is present in the idea that most people have of equality in the ability to perform a particular job. Ideas, prejudices and premises are attributed to the context of growth of the subjects of study linked directly to culture, which inhibit or prevent the complete eradication of such ideas that significantly affect the healthy coexistence and integral, harmonious and social development of individuals.

As Perdomo mentioned by (2017), alternative studies have been presented based on experiences where an equal incentive for learning mathematics in school populations, showing that there are no significant differences based on sex. However, it is overwhelming the number of works that continue to insist on biologically grounding the differences in cognitive skills and interpreting them in terms of superiority/inferiority especially when we talk about skills related to the practice of mathematics. Historian women have shown the keys to the eviction of women from the field of knowledge and from the contexts of organization of professional life and have recovered the scientific work of outstanding women who had been condemned to forgetfulness by traditional historiography, since Pythagoras.

In this sense, the author points out that equity in the mathematics teaching-learning process imply profound changes, not only in the exchange of knowledge during the teaching-learning process, but also in the teacher-student interpersonal relationships. The professor who teaches the subject of mathematics must become a person capable of transmitting to the students a climate of trust that allows him/her to participate in the reality that surrounds them beyond the school environment.

Eradicating gender stereotypes in this area of knowledge, mainly in science and mathematics, should be an educational policy at all levels of education. If mathematics is seen in an absolutist, immutable, static, unchangeable and universal way, it would have a pessimistic vision for...
the students; knowing the limitations, biases and belief
structure of mathematics helps to determine how it should
be changed.

Mathematics also should start from knowledge that mat-
tches students’ lives, not from stereotypical knowledge that
reflects unique experiences; not stereotypical knowledge
that reflects unique experiences; to contemplate the rich
variety of experiences that each student in the classroom
can bring; to value intuition and emotion, as well as diffe-
rent ways of approaching and solving academic tasks; to
avoid devaluing the more practical and concrete ways of
solving tasks or situations; to encourage critical and re-
flective thinking. In particular, it is important for students
to be aware of and reflect on their own thought processes
and ways of solving problems.

Gender differences in educational outcomes were almost
universally in favor of men, but have been narrowing,
which seems to indicate that some countries have chan-
ged to establish an educational system that benefits both
genders equally, many of them as a result of educational
efforts or because of a more favorable social context. In
this regard, classroom research has shown that women
learn better in environments where there is a climate of
cooperation and competitiveness is not encouraged.

Therefore, it indicates that classrooms where mathematics
is taught should be places where:

- Each and every student in the classroom has the right
to speak and to be shown the respect their ideas and
words deserve.

- Conflicts that may arise are resolved among all, as in
a democratic community where cooperation controls.

- Discrimination is not encouraged through written or
oral language or any other type of behavior; instead,
it is contended.

- Mathematics should be based on knowledge that mat-
tches the lives of the male and female students, not on
stereotyped knowledge that reflects unique experi-
ces; envision the rich variety of experiences that each
student in the classroom can bring; value intuition and
emotion, as well as the different ways of approaching
and solving academic tasks; avoid devaluing the more
practical and concrete ways of solving tasks or situa-
tions; encourage critical and reflective thinking. In par-
icular, it is important for female students to be aware of
and reflect on their own thinking processes.

Mathematics professors must be aware that the con-
sciousness of the person in all aspects, as assumed by
the goals of mathematics education, is incomplete and
therefore, actions should be taken to correct this situation.

Actions that, according to the proposal of this research,
should be aimed at:

- Verify the real state of knowledge related to gender
equity that teachers who teach mathematics have, de-
limiting the current state of the different topics related
to gender inside and outside the classroom, and with
this the initial state is followed up.

- Train teachers who teach mathematics in gender equi-
ty subjects with topics that generate changes, such as:
sharing care, diversifying language, egalitarian cultu-
re, prioritizing collaborative learning, promoting equal-
equal participation of all male and female students.

- In classrooms where mathematics is taught, carrying
out activities aimed at: challenging gender stereo-
types, analyzing the use of language, using inclusive
class materials, paying the same attention and having
the same expectations for both genders, addressing
the students in the same way, having all students par-
cipate in different tasks in class, creating inclusive ac-
tivities, without roles and with mixed teams.

- Educate according to individual differences and needs,
without economic, demographic, geographic, geogra-
phic, ethical or gender conditions be an impediment
to learning, taking into account the unequal situation
of male and female students and their families, be sup-
ported by communities and schools, and at the same
time these offer special support to those who require
it, so that the educational objectives to be achieved by
the largest number of students.

As part of future lines of research, topics are proposed in
this study that may allow:

- To link the participation in the interaction by students
in mathematics classrooms and their perception of the
subject and their professional aspirations.

- To analyze the relationship between grades and par-
ticipation in interaction by students in mathematics
classrooms

- To determine whether mathematics professors’ expec-
tations have an impact on students’ perception of the
subject and on their professional aspirations.

- To analyze whether female representation in the ma-
thematics classroom affects the perception of success
or failure in the subject and the perception of whether
or not to continue educational courses.

CONCLUSIONS

Inequity in mathematics education is a reality that en-
compasses various aspects. Different investigations have
pointed out that the educational system is structured
around what it is considered important: men have been
one of these elements. Mathematics has been conceived
as a fundamental knowledge for the human being, there-
fore emphasizing its importance. Consequently, the ma-
thematics-male association has played a main role, to the
detriment of women, in the teaching of this discipline.
Students have been “sold the idea” that men and women are different in their ability to perform in this discipline and most of the educational process has been structured around this idea.

Gender differences in the teaching of mathematics are intensely influenced by the stereotypes that students have assumed and that “determine” them to an established behavior.

Mathematics teaching still does little to “decode” such behaviors. On the contrary, many of the elements involved in it contribute to reinforce the differences. The situation will not change unless teachers are the first to be aware of it. Many teachers unconsciously contribute to perpetuating inequality and the “transmission” of stereotypes. Helping them to correct this task is a commitment of all.

In the mathematics classroom, there are cultural patterns that reproduce stereotypes and traditional gender representations that make inequality and inequity in education. This makes it necessary to jointly carry out actions to modify the “mathematical identity” of students and their perception as learners of this discipline, to encourage the equal entry of men and women to the different majors that have been typified as predominantly feminine or masculine, and to allow both men and women to value the differences in order to build relationships based on respect, solidarity and mutual help. This is where the importance of talking about gender perspective lies, so that women can continue to do so.

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