Contributions from Anatel's Ombudsman to the Public Consultation on ITU Gender

Abstract

The conceptual survey conducted by the Ombudsman Anatel is anchored on the need for understanding of the reasons why, in general, men and women are well-defined career choices which can be understood as a gender construction linked to the absence of models or even taken decision that characterize these choices as a vocational option and based on skills that, in theory, can be developed or learned by men and women, boys and girls. Therefore, you have to that change is inserted through teaching strategies in the context of primary and secondary education, with proper planning to set learning objectives and in view, therefore, to their level of complexity to better adapt the technique teaching.

It is observed that, of the five cases chosen as examples of good practice, three are focused on academic learning, all use the teaching process focusing on the student, and the teacher more as a supporter of the learning experience and enlightening questions and advisor. The other two other cases, one is based on the construction of a public policy of government, but does not, however, the consequences of this policy in terms of effectiveness. Furthermore, when considering the question of ownership of equality for economic, exclusively, there is huge possibility of failure in isolated such policies, given that economic inequalities are increasing and universal and are directly related to the unequal distribution of capital .

In turn, it is understood that forums such as the Women in Information Technology (WIT), the SBC initiative, are important, but not sufficient if we consider that gender issues are elaborated in the symbolic reality and that reality has interface with the culture, values and beliefs. Thus, such events open public space for debate without, however, being a transformative process. Interesting that these forums are promoted by the students who went through the experience in academic level, not as a single space of speech, but speech with results that can be improved. Thus, the Ombudsman Anatel believes that the debate on gender diversity in the technology sector should be focused on educators and researchers in the social sciences.

Introduction

In reference to public consultation by the International Telecommunication Union (ITU) on gender equality and the digital environment[1]Anatel Ombudsman brings contributions towards establishment of propositions, by Anatel, the ITU. Issues related to the following issues were discussed, as well as other related and impact for the reasoning on the subject.

> Bridging the Gender Digital Divide
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> CWG-Internet invites all stakeholders to submit contributions on Achieving gender equality for Internet users, focusing on The Following questions:
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> 1. What approaches and examples of good practices are available to Increase Internet access and digital literacy of women and girls, including in decision-making processes on Internet public policy?
> 2. What approaches and examples of good practices are available to promote the access and use of ICT by SMEs in Developing and least-developed countries, Particularly Those owned / managed by women, in order to Achieve greater participation in the digital economy?
> 3. Which are the available sources and mechanisms for measuring women's participation in the digital economy with focus on SME's and micro-enterprises?
> 4. What measures / policies Could be envisioned in order to foster the role of women entrepreneurs and the managers of SMEs, Specifically in Developing and least-developed countries?
> 5. What are the gaps in addressing These challenges? How can They be addressed and what is the role of Governments?

Contributions

Torres and Pérez-Nebra (2004) point out that Brazil stands out in the international literature as a leading example of diverse cultural groups that live together and interact in apparent harmony. That said,even if it is perceived as one of the largest global economies, with social indicators remains one of the most unequal societies in the world (Instituto Ethos de Responsabilidade Social, 2010). The field of study in cultural diversity is in its infancy, with few systematic practices in people management area in companies

[1] Available in http://www.itu.int/en/council/cwg-internet/Pages/consultation-oct2017.aspx .

and inclusion (Jabbour et al., 2011). In addition, it is understood that the whole issue of diversity in its various aspects is part of a social context that needs to be understood in order to better delineate public policies and evaluate them.

Klanovicz (2016) considers it necessary to think about science and technology, as areas of intellectual investment boys, but also girls and women, why not? In this sense, the described cases and propositions presented here also seek to discuss the issue of inequality between boys and girls, adult men and women, when one thinks of the teaching resources to support the teaching and referral of children in choosing their careers. Therefore, you have to the instructional materials and teaching resources contemplate the potential of diversity as a whole, ie the cognitive potential and its link to the doings in the world of work, independently for men and women. Skills such as creativity, logical thinking and ability to solve problems are key to success in the areas of Information Technology, robotics and programming, for example, and should be encouraged, through pedagogical strategies in the course of elementary and secondary education. Another approach widely used is currently the educational robotics or pedagogical robotics that has aroused the attention of teachers and students as they contribute to the increased interest and creativity of the students, once they experience in practice through the construction of models and robots controlled by computer, concepts studied in class (Azevedo, Aglaé & Pitta, 2010). This strategy meets the requirements of the taxonomy of Bloom (Bloom, 1956), when you point that for every instructional objectives at the level of knowledge, must match the other at the application level. The screen proposition turns to the beginning of the formation of the young students of elementary and secondary education.

Whereas the issue of diversity takes place in living people, from the culture, and is linked to the values and beliefs that characterize the mode of operation of a given society, it is understood that any interventionist action to be effective should consider these artifacts that shape the behavior of the people, and the internalization of the type of role that should play in that particular context from a historical social construction of the roles to be played by men and women in various societies and cultures.

Thus, actions considered "best practices" can be effective in a culture and not necessarily in another. Indeed, it is important that successful cases pursuit of gender equality and growth, for example, women in the fields of exact sciences and men in the humanities, are discussed, however, since it considered the axiological hierarchy of cultural values. Otherwise, you may be investing in a vague speech without concrete and effective results. The study of human values as predictors of human behavior and role performance is consolidated in social psychology, especially from the work of Rokeach (1973), which emphasizes that "human values are important analytical tool to describe and explain the differences and similarities between people, groups and cultures. " In addition to the values and beliefs of a culture, social indicators would be the grinding of these cultures that translate in terms of their concrete reality. These indicators would be, according to Jannuzzi (2017) modeling of social reality, a feature that points out the inequities and scale them.

Reis, Mattos and Moreira (2014) identified that researchers around the world are questioning why the gender inequality in the areas of science and technology, particularly in computing. Recent studies indicate that even in rich and highly developed countries like the United States, the presence of women is very low (Beaubouef & Zang, 2011) in the field of exact sciences.

The European Institute for Computer reports data on the enrollment of students by gender in Switzerland, Netherlands, United Kingdom, among other countries showing that the female presence reaches a maximum of 10%, very low rate compared to the male presence (Pereira & Meyer, 2013).

Gender would be to build a universal symbolic construction?

Brazil is following the world stage, there is in this regard to bring. According to the National Institute of Educational Studies Teixeira (INEP, 2013), it was found that in the year 2013, the number of women who entered, enrolled and completed higher education in Brazil was higher than the number of men (Figure 1).

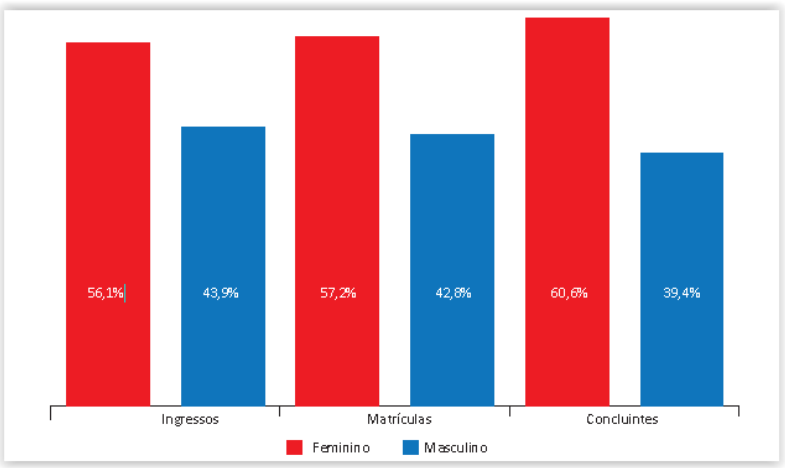

Figure 1 - Percentage of the number of tickets, enrollments and graduates in undergraduate courses, by sex - Brazil - 2013.

Source: Census of Higher Education. INEP / Deed.

However, it is remarkable that the preference of the courses chosen by the female audience is restricted to the areas of human and health. Among the male audience, the data show that the areas of greatest inclusion are linked to accurate, such as engineering and courses related to technology and computing (Table 1).

Table 1 - Total number and percentage of undergraduate graduates, by administrative category (public and private) and sex, the general area of knowledge - Brazil - 2013.

Área Geral do Conhecimento	Total Geral	Categoria Administrativa							
		% Total		Pública			Privada		
		% F	% M	Total	% F	% M	Total	% F	% M
Total Geral	991.010	60,6	39,4	229.278	58,8	41,2	761.732	61,2	38,8
Agricultura e Veterinária	19.111	43,9	56,1	11.851	45,1	54,9	7.260	41,9	58,1
Ciências Sociais, Negócios e Direito	439.250	58,3	41,7	56.217	55,5	44,5	383.033	58,7	41,3
Ciências, Matemática e Computação	55.176	32,5	67,5	17.818	40,4	59,6	37.358	28,7	71,3
Educação	201.011	76,3	23,7	71.086	70,0	30,0	129.925	79,8	20,2
Engenharia, Produção e Construção	80.850	30,2	69,8	26.795	33,6	66,4	54.055	28,6	71,4
Humanidades e Artes	27.172	57,5	42,5	7.650	58,9	41,1	19.522	57,0	43,0
Saúde e Bem-Estar Social	139.880	76,8	23,2	33.860	74,8	25,2	106.020	77,5	22,5
Serviços	28.560	60,7	39,3	4.001	62,1	37,9	24.559	60,5	39,5

Source: Census of Higher Education. INEP / Deed.

In order to advance the discussion of such content, the Ombudsman Anatel identified some inclusive practices considered successful in the context of Brazilian culture, basically made up of individuals with values such as: *Pacifism, Traditionalism, Domination Vs Dynamism Hedonic* (Pasquali and Alves, 2004) and inserted into a specific type that characterizes the way impact the company through indicators such as poverty and inequality, labor market, education.

In this sense, Roberto DaMatta (1984) seeks to understand, through tests, Brazil designating a people, a nation, a set of values, choices and ideals of life. Thus, the starting point of DaMatta theory (1984) is: "both men and societies are defined by their style, their way of doing things. If the human condition dictates that all men should eat, sleep, work, play up and pray, that determination does not reach the point of also specify that food eat, how to produce, with that woman (or man) to mate and how many gods or spirits pray. It is precisely here, in this kind of indeterminate zone, but necessary, born the differences and, in them, the styles, the ways of being and living, the 'ways' of each "(p.10). In this particular, the author also corroborates that Brazilian society is eminently traditional.

Bourdieu (1995) on the idea that man is normative and therefore its relationship with the woman can only happen by a complementary system. In this system, divide roles, functions and characteristics of men and women through a binary structure. Grifa is complementary, because in fact it is not, appears to be, but it is actually an arbitrary division opposition, this rather clear and manifest. So what are the characteristics or roles that were engendered by thousands of years, for men and women?

Rose Marie Muraro makes an interesting play on words gendrar / gender and that sets the tone of how this female and male construction occurs at the level of cultural and only from it can be changed, "So this limited reality that is the human reality is "gendered" as "gendered" is all of us. Because we all have a genre, that is, we are men or women. [...] we will take gender as what defines the human being within the symbolic reality [...]. It also highlighted that gender should not be confused with sex - that is our biological rigging - which can be experienced in different ways: straight and gay, bisexual and transgender, intersex and countless variations within each category "(Muraro & Boff, 1998 p.121-122).

Therefore, in order better propose actions considered perhaps positive regarding the negotiations for the pursuit of gender equality, important to consider, especially the specifics of each culture. Moreover, these features translate through studies at the level of anthropology, sociology and psychology and esmerilham

reflected in social indicators. However, it is important and necessary to consider the methodological complexity in the construction of these indicators. Important that they are always analyzed universal indicators such as the HDI, a social nature and constituted by the simplest indicators of composition, such as better understanding of instruments of social practices itself.

The cases presented here on cue level, turn to the beginning of the formation of young students in elementary and high school. It is against this background that the cases presented are located. The discursive proposition is based on this universe than can be done by boys and what can be done by girls. It would then, the complex world of science and technology is the subject of interest also girls? Could technology be a possible female choice?

Shirley Malcolm, the basic idea is: "(...) we can give better education for all children. The sooner the options for young women are open, the more we can convince them of the ability to pursue science as a career. However, if they are closed from the beginning, there is no way to captivate them, even later if you decide that this is something that interests them "(Malcolm, Rial, Grossi & Lima, 2006).

Indeed, the playful elements used in childhood and, of course, often characteristic and specific to each culture can interfere with their future choices and skills. It's actually a joke that children can design their social constructions. It is when you can be creative, being herself without fear of adult imposition. Through play the child projects for an illusory world in which it is itself the author. The project ROSE (Sjøberg & Schreiner) presents reports that bring information about possibilities of thinking the relationship between the way of teaching science to children. The project data point to a growing gender gap in relation to C & T, for example, girls behaving more skeptical than boys about science. Outside of Northern Europe and shifting his gaze to other continents, especially Africa and Asia, in countries such as Uganda, Ghana, India and China you can see that children are more confident in science and there is a desire in the future, be scientists. Also important to consider that for reflection regarding the presence of women's history in relation to different scientific fields.

Case studies

Case 1 - Source: Department of Public Policies for Women (SPM, Government of Brazil, 2015), published in 08.12.2014, 24.03.2015 last modified.

Resource use:

economic autonomy.

Purpose:

Women's economic empowerment is very important factor in the pursuit of equality between women and men, whether in the cities, the countryside or forest. The economic empowerment of women is the condition that they have to provide their own support, deciding for themselves how best to do it. This also involves the people who depend on them. Thus, it is more than financial autonomy, as it includes a long-term perspective of life, with access to social security and public services.

Methods and Results:

For this, the SPM is developing public policies for the inclusion and permanence of women in the labor market and the expansion of their social rights. Women have won a lot in that area, but there are still important challenges ahead, as getting equal pay. It is necessary to go further in the legislation and change the working relationships between women and men. The double women's working hours is one of the main responsible for the unequal conditions between women and men in the workplace. The law expands the rights of domestic workers (PEC of Domestic), the propositions on maternity and paternity leave,

Case 2 - Source: Department of Education of the Federal District (GDF).

Purpose:

Offer students the public schools reflections on gender equality, women's representation in the media and violence against women.

Upgrade the educational model applied to young people by promoting an increase in interest in the learning process.

Methodology:

cooperation agreement for international expansion of the project Inspiring Women. Give support to the project the Development Bank of Latin America (CAF) will invest US $ 20 000, and the Organization of Ibero-American States (OEI) will be the manager of the resource. With these features, 15 schools in seven administrative regions participating in the initiative.

The project will be expanded through the training of 30 teachers, who will work in seven regions mapped by the program "Viva Brasilia" considered socially vulnerable or high crime. To clarify the Program is the main public security policy of the government. It is expected to benefit about 1 550 students from public schools in the regions of Ceilândia, Structural, Planaltina, Pilot Plan, Fern, Santa Maria and Taguatinga, metropolitan areas.

According to managers teachers of the project, the investment is important, though modest: "Many schools have a limited budget and projects like this are not treated as a priority." They understand also that the action has the potential to bring about change. "It's very interesting how the role of an educator is transforming the lives of people and society", since even according to the managers, "In the 21st century, we still suffer a lot with gender violence and the underestimation of the role of the woman".

Similarly, men were called to participate in this change, since "they have important role, especially those who are truly women's side."

The director of CAF in Brazil, Victor Rico, evaluated the social technology of this initiative is sophisticated and can serve for many other school systems in the future. "To value the female role with students is a way to work early on equal rights and the healthy interaction between boys and girls," he emphasized. Also according to the Secretary of GDF Education: "Little things that teachers do provide students discuss gender issues and give everyone the opportunity to work and to be equal."

Thus, the first half of 2017, it launched the tender for selection of participants, with two teachers per school, after curriculum evaluation.

For the mentor of the project there is a generation of digital natives - people who were born in the technological world. Therefore, we must use technology to dialogue, for conflict started on the Internet may hinder educational development. A recurring example is the disrespect and the sexualization of women.

In this sense, the creator of the project teacher has chosen to work on the diversity of projects of Elementary Education Center 12 Ceilândia. It was possible to strengthen the dialogue with students and align it to pedagogical practices with the creation of a social network. Then he was encouraged to read works written by women who have been leaders had stories of overcoming or effected great things, like Anne Frank Cora and Malala Yousafzai. Was born the "Women Inspiring".

After expanding the knowledge of the students, the teacher instructed them to interview and produce matter with a woman from his social bond they thought an inspiration. "Most of the students chose the mothers, grandparents and great grandparents as a character. They found stories and began to value the role of women, once they heard reports of difficulties, abuse, violence and discrimination. "

results:

The 95 texts, written in 2014 and 2015, resulted in the creation of a book, with the eponymous title. The work was organized by two teachers and launched in 2016, the Women's Day (March 8). The model also served as inspiration for other institutions. Lectures were made in public schools, ministries, defense offices and universities.

The project has received several awards, including the 4th National Award for Education in Human Rights of the Presidency of the Republic (2014); 8th Teaching Award of Brazil, the Ministry of Education (2014); and the First Ibero-American Prize for Human Rights Education OEI (2015). The honors earned more than R $ 100,000 invested in the school of origin.

Case 3 - Source: University of Brasilia (UNB) [2] and High School Center Paulo Freire. Encourage the participation of women in technology and computing courses.

[2] Maristela Netherlands, Department of Science Professor of Computing at the University of Brasilia (UNB) mholanda@unb.br; Maria Emilia MT Walter, Department of Science Professor of Computing at the University of Brasilia (UNB),

General description:

Meninas.Comp

The 21st century has ushered in a change in the world of the play and the development of creativity. Boys and girls have found possibilities for fun and accessible setting in mobile phones, tablets and computers. But in adulthood, the virtual world and the curiosity to explore a number of technological resources seem less attractive to girls. Therefore, when deciding on a career, they just are interested in the courses related to the field of computing.

This finding led three professors of the Department of Computer Science at the University of Brasilia (UNB) to create a project in partnership with public schools in the Federal District, designed to attract women to this field of knowledge. Since 2010, the Girls project in Computing (meninas.comp) encourages programming projects and software development in high schools and shows that the choice of profession is independent of gender. Project teachers and students presented the issue to the public in the National Week of Science and Technology, held in Brasilia from 19 to 25 October last.

2014 study at UNB, chaired by Professor Jan Mendonça Correa pointed out, based on data selection and Event Promotion Center (COH), that only 10% of students who entered in the computer science courses, degree computing and computer engineering are female.

This gender inequality is verified in practice by Professor Patricia Aleteia Favacho de Araújo, also project coordinator. "In my class of this second half of the 55 students, only one woman," he says. She believes in cultural influence for the lower representation of women in the field of computing, the reality of Brazil and other countries. So projects like UNB are also developed by Brazilian and foreign universities and have the incentive of the big computer companies, interested in professional women in the creation of software for the female audience.

Purpose:

Attract women to courses in technology and computing. In it, college students promote weekly meetings with high school students to teach classes of materials related to computer courses. The project has been ongoing since 2010 and received on 17 June, honors the world's largest technology event in Brazil, the Campus Party.

The participation of women in technology and computing courses at UNB is still low, hovering around 10%. The project is highlighted in Campus Party precisely because propose and act in the modification of this setting and gradually introduce more women taken environments as predominantly male.

Methods and Results:

The meetings take place every Friday, over two hours in the school computer lab. The Meninas.Comp group consists of thirteen students of the four universities Paulo Freire, two pupils of the former unit. The project also has the support of a math teacher from high school unit. He is responsible for overseeing the project activities in schools.

In the meetings, the younger students learn about programming language, Basic Electronics Concepts. "We started with simple projects, such as teaching to light an LED and gradually increase the degree of difficulty. Today we work with complex projects like building robots and cash d'building intelligent integrated water a garden, "explain the teachers.

The Meninas.Comp project is part of the political-pedagogical project of Paulo Freire and has the school direction of investments.

robots -The project currently supports Girls in Computer programming workshops, creative software and robotics in High School Center Paulo Freire in Brasilia. The math teacher Carlos Alberto de Oliveira Jesus is responsible for the project activities in the school, with classes twice a week in shift and contraturno. Seven students participate. "They are the best math students," he says. "Our goal is to work with the programming language, which includes logical reasoning, and data structure." According to the teacher, the students must create a software able to control the movements of a robot.

One of the projects developed by the students is the Smart Home, which uses sensors to control light and gas emission. No movement of people in the rooms of the house, the lights are automatically switched

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mariaemilia@unb.br; Aleteia PF Araujo, Department of Science Professor of Computing at the University of Brasilia (UNB), aleteia@unb.br.

off. In case of gas leak, the system is also turned off, and the owner of the residence, warned by message. This whole system is powered by a solar panel built with LED lamps that consume less energy. All done by the students. "With this project home automation can reduce spending on electricity and increase safety," says Carlos Alberto.

The materials used by the students are purchased with funds obtained by the UNB project. The students are also invited to visit the computer labs, bioinformatics and engineering at the University of Brasilia.

Case 4 - Source: Event associated with the Congress of the Brazilian Computer Society (SBC): 10 WIT - Women in Information Technology. 2016.

Purpose:

X Women in Information Technology (WIT) is an SBC initiative to discuss the issues related to gender and the Information Technology (IT) in Brazil - success stories, incentive policies and forms of engagement and attract young people, especially women for careers associated with IT. Organized in the form of guest lectures and panels, the workshop was focused on discussing women-related issues and their access to IT, from the point of view of the labor market and inclusion and digital literacy. The topics focused on the need to educate, recruit and train women as a strategic development policy and national and regional competitiveness.

The main purpose of WIT is to create a forum that promotes strategies to increase the participation of women in IT in Brazil. The topics included: (a) critical issues that impact the full access of women, training, participation and leadership in the area; (B) strategies to increase visibility in Brazil, the problems relating to gender and IT, with the awareness of all segments of our society; and (c) national and international business policies to address these challenges and presentation of success stories.

Case 5 - Source: Federal University of Paraíba. Project Women in Computer Science: Awakening vocations through the dissemination of knowledge, approved by the public call girls and young doing Exact Sciences, Engineering and Computer Science (18/2013 MCTI / CNPq / SPM-PR / Petrobras) initiated a set of actions with the State Public School School Matheus Augusto de Oliveira. The Use of Robotics Kits as a Tool for Programming Education to High School Girls[3]

Purpose:

The goal of the project is the dissemination of the computing area courses offered by UFPB and careers and prospects of the labor market in the area.

Methods and Results:

educational strategies are used to encourage pupils and students to develop skills considered basic resources for learning in technology, for example:

1) Reducational obótica for teaching discipline Compilers (Attrot & Ayrosa, 2002). A new programming language called WELIX, and their respective compiler for use with Lego MindStorms Kit were developed. In this sense, educational robotics Lego kits along with the Logo language were used in the experiment conducted with high school students involving matters related to the geography of disciplines, mathematics and computer programming (Benitti, Vahldick, Urban, Krueger & Halma, 2009).

2) The music, on the other hand, is characterized as another approach to the introduction of concepts of algorithms and computer programming (Silva, Silva & Melo, 2011). With notions of musical concepts and the use of a tambourine, associated with the idea of executing a set of instructions to produce a desired output, algorithmic concepts were discussed.

3) ProblemBased Learning (PBL) method (Bellstrom & Kilbrink, 2010) is characterized as the student responsible for the creation of learning and the teacher to select the problem to be solved and be the facilitator of the activity. This method is also known as Keller plan (Keller, 1972) or Personalized Teaching System (PSI), widely used in the 1970s, and Distance Education (EAD) are two teaching methodologies that break with traditional models of education, in which the critical center of transmission of information is the teacher (Todorov, Moreira & Martone, 2009).

[3] Giorgia de Oliveira Mattos ,; Danielle Rousy Dias da Silva; Josilene Aires Moreira; Computer Center of the Federal University of Paraíba (UFPB).

What is desired using a method like the PSI, for example, it is that students use educational robotics kits for familiarization with robotics and concepts that will use later. In a second step, students build their own robots. This strategy was used by UFP teachers in order to demonstrate to the students, their potential in the construction of own knowledge and the ability to learn and adapt to any language.

Reverting to career choice of girls and boys?

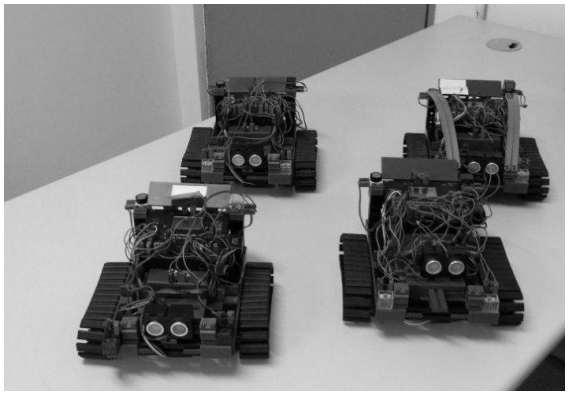
Various strategies have been used and are similar in the cases cited here. Adopt the path of programmed learning and learning by models in some aspects. Incidentally, one of the findings to a reduced choice of women for the area of Technology Science indicates the absence of models. Participated in this methodology three teachers of the UFPB Computer Center and four undergraduate students, three of the computer science course and a course in Computer Engineering.

The activities involving the educational robotics have been made in the State Public School high school students with classes of the first, second and third years. This school is part of ProEMI - School Program Innovative, intended to stimulate the education of state systems thinking new solutions that diversify the curriculum to integrating activities, from axes work, science, technology and culture, to improve the quality of education offered in this educational stage and make it more attractive. Thus, the activities were carried out for approximately three months, a total of five meetings.

In Singapore, with support from the government of the State of Paraíba, in 2008 we were attended about thirty thousand students from public sphere in projects involving educational robotics (Daoun, 2008). The activities were developed with eight high school students involving the first, second and third years. There was no formal selection process for participation in the activities, only the interest and motivation of the students to participate. These girls were divided among themselves and formed four double according to the affinity between them. Each pair worked with a robotics kit. KitsRobotics Fischertechnik[4] They had the function of assisting the teaching-learning process in courses that are part of the high school curriculum.

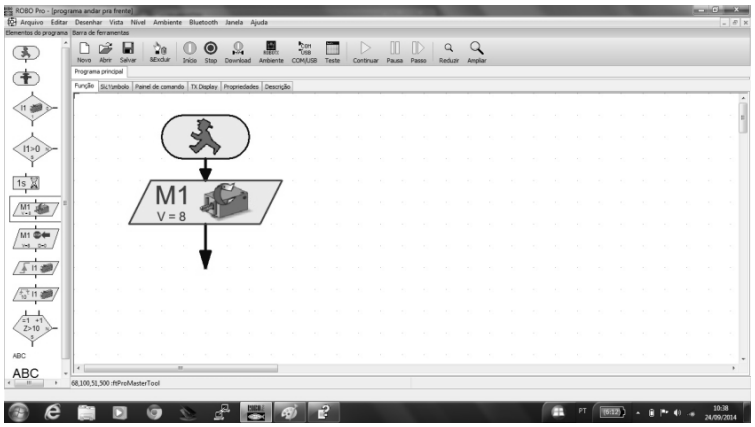
The implementation of the methodology was divided into three stages.

Step 1 - assembly, took care of the organization of material to be used for assembly robots effectively, identifying and separating the parts to be used.



Step 2 - programming and robot testing took care of the building code in flow chart form and divides the programming levels, from the most basic to the most complex involving objects, routines, variables and commands defined by the programmer. The contingent reinforcement learning has been used as a resource for reinforcement at each stage of the programming process.

[4] http://www.fischertechnik.de/



Step 3 - assessment by means of a questionnaire pre and post-test type identified before going through the process. Of the eight participating girls just said in the pre-test which considered the interesting area of computing, but was not at his priority list this profession. After the intervention, two girls safely considered the choice of technology.

Conclusions

The conceptual survey conducted by the Ombudsman Anatel is anchored on the need for understanding of the reasons why, in general, men and women are well-defined career choices which can be understood as a gender construction linked to the absence of models or even taken decision that characterize these choices as a vocational option and based on skills that, in theory, can be developed or learned by men and women, boys and girls. Therefore, you have to that change is inserted through teaching strategies in the context of primary and secondary education, with proper planning to set learning objectives and in view, therefore, to their level of complexity to better adapt the technique teaching.

It is observed that, of the five cases chosen as examples of good practice, three are focused on academic learning, all use the teaching process focusing on the student, and the teacher more as a supporter of the learning experience and enlightening questions and advisor. The other two other cases, one is based on the construction of a public policy of government, but does not, however, the consequences of this policy in terms of effectiveness. Furthermore, when considering the question of ownership of equality for economic, exclusively, there is huge possibility of failure in isolated such policies, given that economic inequalities are increasing and universal and are directly related to the unequal distribution of capital .

In turn, it is understood that forums such as the Women in Information Technology (WIT), the SBC initiative, are important, but not sufficient if we consider that gender issues are elaborated in the symbolic reality and that reality has interface with the culture, values and beliefs. Thus, such events open public space for debate without, however, being a transformative process. Interesting that these forums are promoted by the students who went through the experience in academic level, not as a single space of speech, but speech with results that can be improved.

Thus, the Ombudsman Anatel believes that the debate on gender diversity in the technology sector should be focused on educators and researchers in the social sciences.

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