

# Accessibility and professional capacitation: university extension project

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**ABSTRACT:** Every person with disability has the right to specialized education, access to sports, leisure and culture, and this should be provided in an environment with an accessible structure and by trained professionals. Many developing cities may not have the capacity to promote this by themselves, due to the lack of specialized professionals. To try solving this issue, the present research proposes the collaboration among the population, city and university, by the students, through the creation of university extension projects, and the proposals of public policies to help the communities. By the contact between researchers, universities, teachers and students who live in other realities, we can exchange experiences that provide new ideas and even guidance to solve problems that may interfere in the development of the proposals. In addition to obtain access to researches that give bases to the knowledge acquired, so that the argument of the proposal is valid and applicable.

**KEYWORDS**—Accessibility, Extension projects, Persons with disabilities, Professional capacitation.

## I. INTRODUCTION

"The state will support the training of human resources in the areas of science, research, technology and innovation, including through support for the technological extension activities, and should grant special means and conditions for those who are in these occupations" (BRAZIL, 1988, p 163).

In Brazil, one of the best ways that the universities have to put the student in a professional ambient with the practice of his future job is the university extension projects [1]. Basically, is to practice his knowledge obtained during his graduation, working to the good of the community. These projects seek through social actions to provide benefits in several areas of human knowledge, through the interest of students and teachers, in the deepening of some themes, such as accessibility. It aims at social development, ensuring democratic values of equality of rights, respect for the person and environmental and social sustainability, elaboration and articulation of public policies [2]. The São Paulo State University [3] [4] (UNESP), one of the public and free universities of Brazil, has established its campuses in 24 cities, and has more than 550 university extension projects officially registered in its website, and at least 9% of those extensions are about accessibility, inclusion of persons with disabilities, or reduced mobility.

"...the university propagate its transversal character by developing and encouraging programs of extension and mobility for both its teachers and students, in order to maintain the prestige and to reaffirm its reputation among the best universities of the world" (UNESP, p 3, 2016).

## **II. A VIEW OVER THE MAP**

### **2.1 EXCLUDING THE INCLUSION**

One of the most common complaints of the population that could be identified is the lack of specialized service to attend persons with disabilities. Only the creation of laws and public policies for persons with disabilities, about the right and access to education, culture and leisure, but without a further preparation of the professionals, it does not work. Some of these laws predict to punish with prison the person who blocks the access to a person's education because of their disability, but the main need is the quality of this education and the training of those teachers in the Specialized Educational Assistance (an aid to complement the regular academic education) [5] [6].

Throughout the years the index of persons with disabilities in regular classes of Brazil has been increasing [7], but that does not mean that these people receive a proper education as needed. The 2017 census of basic education shows that only 40% of the people are able to enjoy the specialized educational services, most of the regular schools do not have an accessible structure for people with disabilities, and some of these schools do not even have reading rooms, labs or sports field.

Thiago Helton, a lawyer and member of the commission for the defense of the rights of persons with disabilities, says in his article [8] that beyond the disregard of the public power, and the illusion experienced by the relatives of these people, we face the exclusion of person already inserted in the classroom; the lack of qualified professionals to deal with the diversity of disability; besides the lack of work material and structure for the specialized educational service.

### **2.2. FROM TEACHING TO THE ACTION**

Another point to be analyzed is the lack of experience of newly graduated students. In the research [9] of Melo and Borges, for some of these students the universities do not prepare them appropriately for the job market. From the point of view of some universities, it is the students who do not want to participate of the practical activities that are offered during the graduation, like workshops, internships and extension projects. And for some companies and institutions, the university extension projects or even the internships (whether they are mandatory or not) are not considered necessarily a practical experience, and they end up identifying these new professionals as inexperienced.

In this perspective [10] some students continue their studies, like a post-graduation and specializations, thinking that this will be able to help them to get a job. But on the other hand, some companies shy away from hiring a specialized professional who graduates because of the possibility that he may leave his workplace to take on a better job offer, or even fearing having to pay a high salary as the professional specializes himself.

## **III. CONTEXTUALIZING THE POSSIBILITIES**

The interest in this research came from the experience lived by the author during her graduations. And stimulated by the participation on the civil diplomacy program during the 9<sup>th</sup> World Urban Forum, occurred in 2018 in Kuala Lumpur (Malaysia). Through the participation in the program, the author could visit the research department in the Sports Centre, of the University of Malaya. And during the visit, the department report some of difficulties to implement a program of sports and physical activities for persons with disabilities. Situation that made the author to reflect about what could be done.

At the physical therapy graduation (private university) the author was provided by the university a series of mandatory internships in different areas of the professional practice (two months each area), but she never had a stimulus for the creation or participation in an extension project. And at the graduation in physical education (public university), she had mandatory internships (30-45 hours each area), and was stimulated to participate in workshops, short courses, scientific events, laboratories of research, and extensions projects.

In a conversation with the mentor of the final course assignment, came up the interest of the author to do a research about rhythmic and expressive activities for persons with visual impairment, and the creation of an extension project for it. Its proposal became "Dancing in the Dark", a university extension project, guided by

professor Rubens Venditti Júnior (UNESP, Bauru). Classes of gymnastics, dance, rhythm and corporal expression for persons with visual impairment, using the structure offered by the Department of Physical Education of UNESP, and with the support of the Science Faculty (campus Bauru).

A partnership between the university, providing the structure and specialized service (students under the teacher guidance), with the community, through the participants of the project (members of the "Santa Luzia", home and school for the blind people) enjoying the benefits of specialized physical activity.

In some of those classes were created assistive technologies to improve and ease the activities like a ludic method for stretching (using a belly dance veil), and a "tactile paving for stage" (using old seeds and duct tape) that provides a guidance of the limits of the stage floor and the steps of the choreography. These discoveries should be shared, so other professionals could use it, or even improve it.

The author participation in congresses, symposia, and volunteering groups for universities students at sports events such as the Youth Parapan American Games (2017), provide the chance to get in touch teachers and students from different cities, states and countries, with others kinds of methods and share some information about their projects and researches. Experiences like these, an informal contact, could reach a lot of people. So, the author proposes to share the knowledge developed in the university extension projects, not only thru published articles, but using the social media as well.

The university extension project "Dancing in the Dark" started to organize a page on the social media Facebook. And in an internet research, a student of physical education from the National University of La Plata (Argentina) found the page on Facebook of "Dancing in the Dark" and sent a message asking about the program of rhythmic and expressive activities, how we provide the classes to the visually impaired persons, and how the participants could walk without a guide across the stage. We exchanged some information, videos and photos, so the ideas could be reproduced and improved, in order to benefit other communities.

It was observed during these participations, and the research for the creation of the extension project, that we could find more information about methods, programs and projects for persons with disabilities, through a personal contact with the students and teachers on those events and social media. The academic contact (paper, articles, theses, and dissertations) give us some technical information. But a person could give you the sensation of the proposal, errors and hits and the experience that it provides, sharing the most important thing when you work with persons: the emotion!

In Bisset's research [11], she presents the data of a dance project for persons with visual impairment inside a university in South Africa and shows a huge list of benefits provided by the physical activity: social, physical, mental, and emotional. The article is a great source of knowledge, well written, and filled with good and practical information. But with the knowledge of the multiple intelligence's theory [12], we could understand that some people "fall in love" for something using other methods beyond the reading. What if somebody could hear an audio or see a video about the work?

In this modern world, it takes just a few seconds to find on the internet some photographs or videos about "Dance Therapy South Africa" [13], the project of work created by Bisset. Offering other kinds of contact, and exchange of information. If you want, you can find her on LinkedIn, and talk to her. This is the technology connecting people from the whole world and it should be used for learning. With a few clicks we can put together dancing projects from Brazil, South Africa, and who else wants to connect. What kind of ideas and proposal could it bring? All of them, because of the person-to-person contact.

The United Nations (UN) officially recognizes 193 countries [14]. The report [15] of the parallel session "Implementing Inclusive Education to meet the Educational Needs of Persons with Disabilities" of UNESCO compiled data from 48 countries of their status about the ratification of some related conventions (Brazil is on that list). It can mean that the others 145 countries still need to put it in practice. If the teachers and students from countries that already have some public policies, and have success in implement it, exchange their information with students and teachers from countries that do not have it. It might be able help them to have some base to discuss and charge it from those who are responsible of creation and implementation of those public policies.

"People with disabilities face specific challenges in the pursuit of their right to education resulting in a reduced access to mainstream education, specific provisions guarantee their right to education and encourage countries to adopt an approach that

is inclusive to all, including those with disabilities." (INTERNATIONAL CONFERENCE "FROM EXCLUSION TO EMPOWERMENT: ROLE OF ICTS FOR PERSONS WITH DISABILITIES", p 5, 2014).

We need to create a network, to connect these people who want to change their realities for the best, recognizing a person for his being, not his wealth, looks, abilities or disabilities. And a good way to do it is to inspire a person to think for himself and allow this thought to be free of barriers. This combination of the elements, network, people, science, and good will is not new.

#### **IV. PROPAGATION IN PRACTICE**

"We need to keep people interested in science to reinforce critical thinking skills"

Robert John Dwayne Miller

Science outreach is similar to an university extension project, it connects people to science through events and programs. Professor Dwayne Miller [16] is kind of an activist of science outreach, he created the open house and festival "Science Rendezvous", events of labs and scientists presenting their knowledge, studies and researches in a ludic and fun way that is spreading in Canada. Its objective is to awake the interest in study, science, and art, stimulating the propagation of knowledge. At "Science Rendezvous" website [17] we can find every city and university that participates of the proposal, and even inscribe yourself as a volunteer.

The "Science Rendezvous" is the achievement of a goal for the professor, 3 years of work to organize the universities, institutions and everything else to make the event a great opportunity to promote the importance of the science. Providing, as well, trainings for the scientists to have a better communication with the general population by propagating science wherever they are.

The city hall of Campo Grande, in Brazil, made a deal [18] with the Federal University of Mato Grosso do Sul to the exchange of information and technologies. They plan to use this partnership to develop and computerize the city, using the university students to create apps, and technological proposals to be implemented in the city. And thus, helping the students to obtain practical experience on their areas, developing tools to solve problems, and providing benefits and scientific advances to the community.

Both practices related above motivate a thinker person to go beyond, so, if we create an easy way to "show and tell" good practices, experiences, and discuss about public policies to stimulate people to move, to think, and create.

#### **V. CONCLUSION AND ACTION PROPOSAL**

The virtual social network Facebook reached in 2017 more than 2 billion active users monthly worldwide [19], becoming the biggest social community on internet, way ahead Twitter and Instagram. This research proposes that the researchers create public pages on Facebook, and others social medias, taking advantage of the use and reach of the "#" to disclose and search for research. As a way to disseminate the researches, articles, theses, programs, projects, events, public policies, and journal news, about medical, physical, cultural and social activities for persons with disabilities and things related that happen around the world.

Andrews et al. [20] made a list of what motivate and what discourages the scientists that participate in outreach programs. Being the motivational top list: desire to contribute; improve teaching skills; fun/enjoyment. And the top hinder list: lack of time; lack of information about opportunities; lack of support/value. A social media network can provide the wish and incentives through the publications, and if some problem shows up. Like "how to find sponsors?". Information's like these could be published on the social media, so the followers could help on the comments. It starts a good debate, that can solve problems, or even give some ideas for more researches.

In conclusion, it might be a hard work to organize the information, select what is useful for each one, but to propagate science we should connect our knowledges so together we could solve problems, and present

well-prepared proposals so the cities could use to the community. This is how this logistics work, to research, to plan, and to implement a project with the best strategy and preferably on low costs

Practical application: The proposal cited above should be implemented during the master's degree (Post Graduate Program of Human Development and Technologies of UNESP campus Rio Claro) research of the author, as a technological tool to be used in favor of science to benefit persons with disabilities.

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