

## 98 - STRATEGIES AND RESOURCES APPLIED TO LUDIC ACTIVITIES FOR AUTONOMY AND INDEPENDENCY ACQUISITION OF BLIND AND LOW VISION CHILDREN

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### INTRODUCTION

As well as the hearing and smell, vision is a very important channel for learning, allowing the acquisition of information about people, objects and the environment we live in. Once visual capacity is totally blocked or diminished by an impairment in the organ or visual system, the motor development is delayed, what limits the number of experiences and information, interfering on motor, cognitive and emotional development (Cf.SCHOOL, 1986), because visual stimuli for movement and for reaching an object is under the normal, resulting in limitation or incapacity for the normal performance of direct or indirect activities.

From his experimental studies, Rocha (1987) affirms:

*Noting that people with the same measure of visual acuity showed different ways for the use of residual vision, the parameter for educational purposes has become the functionality and not the visual acuity. Thus, blind people are those who present from total visual absence to the light perception (light and dark distinction), or light projection (recognition of light direction), needing Braille writing system and using other senses than the vision, to the world knowledge.*

From this assumption, it is believed that visually impaired persons, in the absence of vision, establish possibilities of responses using other senses, like hearing, gustatory, olfactory, tactile, and even visually, in the case of children with subnormal vision, to relate and interact with the world. Therefore, it is essential to establish the necessary adaptations during the teaching process, allowing the student to perform its capacities, using teaching strategies, that according to Seabra Junior (2008, p.6-7), "is a tool that request the comprehension of necessary requirements to prepare and apply motor tasks according to the needs and capacities of the public in question", and pedagogic resources, "that are known as the materials and/or implements used for: execution, education, training, support and learning motor tasks against necessities", using toys and games based on psychomotor, that intends to facilitate infant development by stimuli, providing a cheerful and pleasurable learning. Adaptation and construction of pedagogic resources, so as teaching strategies, should favor the autonomy and independency of visually impaired persons, allowing the effective practice of physical activities.

A child with no visual impairment stimulates himself for the movement, because he sees what desires to explore; however, the child who has such impairment does not visualize the presence of the object, and then does not stimulate himself for the movement to look for, manipulate and explore it. Thus, physical activity inserted in its routine treatment adequate and/or adapted activities, materials, local and instructions for effective participation of the disable people in all moments of challenges and experiences in activities that require movements (SEABRA JUNIOR, 2008).

Perceptual-Motor stimulus is important for all children, but for those with privation or functional reduction of vision, it is extremely necessary the comprehension of this deficit, since the way that physical activity program is organized is one of the requirements to allow cognitive, motor, emotional and social development, that is, harmonious global development. For this, stimulus is the major factor (SEABRA JUNIOR, 2008) for the global development does not be impaired. Just after the absorption and denomination of determined motor actions by the student, that he will be able to evolve with the learning, in order to suggest different ways to explore it in relation to his ways and objectives. This is the moment that the use of toys and games, and the active participation in physical activity classes are fundamental for the construction of motor responses by the children.

Despite, adapted motor activity has been marked by its performance in the professional and scientific environment. Its action has been guided by the concern in attend educational and recreational demands of several disable groups.

Especially, teaching strategies and pedagogic resources adequate and adapted to each group constitute the major factor to reach the proposed goals, mainly in relation to changes in the behavior. Thus, teacher should stimulate more movement autonomy, and seek an independent locomotion or the discovery of new motor possibilities, more adequate to the solutions for routine problems that stimulate the use of remained senses. According to Bueno e Resa (1995 apud CIDADE; FREITAS, 2002, p.42-43), these adjustments could involve:

- Material adaptation and its organization during the class: available time, space and material resources;
- Program adaptation: planning, activities and evaluation;
- Application of a methodology adequate to the students comprehension, using strategies and resources that stimulate the interest and motivation by concret examples, encouraging the expression and creativity;
- Objects and content adaptations, adjusting them according to the special educative needs, prioritizing the specific content and objectives, defining the minimal and adding the new when necessary.

In this direction, pedagogic strategies and resources are essential in the preparation of sensor-motor activities, which use toys and games based on psychomotor, that intent to facilitate infant development by stimuli, providing a cheerful and pleasurable learning.

So, using ludic, recreational, physical activities and games as tolls to help teachers from the special and inclusive education, favor the sense-motor development of blind or low vision children. Thus, it is intended to instrumentalize the professional that acts with blind or low vision people, systematizing and providing a list of resources and strategies appropriate to the teacher intervention with ludic-educational activities.

### OBJECTIVES

General objective is to prepare, apply and evaluate sensory motor activities that allow the autonomy and independency of blind and low vision children in ludic and recreational activities based on Sialy (2006) methodology.

Specific objectives are: a) elaborate pedagogic resources and teaching strategies that favor the autonomy and independency of visually impaired persons, directed to the effective practice of physical activities. B) Use ludic, recreational, physical activities and games as tolls to help teachers from the special and inclusive education, integrating didactic-pedagogic

resources developed in University with the school and other institutions specialized on the attendance of blind or low vision children.

### METHODOLOGY

#### Subjects Characterization:

This study was developed in the Philanthropic Association for the Protection of Blind People of Presidente Prudente; participated on the study seven children from 02 to 08 years old, with the following diagnostics: five children with total visual impairment and two children with visual capacity reduced, as a result from a defect on the visual organ or system.

The chosen procedures for data collection and analysis followed the steps below:

**1st Step:** documentary record from a bibliographic survey in database, followed by the production of a structured interview form for parents and teachers of the students, to register theoretical and practical indicators that could reveal the extension of the subject to be searched. According to SIALUYS (2010), the interview form cannot be applied as an interrogatory or test situation, but as an interactive and dialogic situation. It can be filled by the parents at home with more time, or with the help of the professional responsible for the child evaluation. Moreover, data collection is essential for the inclusion planning elaboration, for the adjustments and circular complementation, aiming the support system to multiple disabilities student inclusion on the common class.

Subsequently, a Systematic Observation work was started and, according to Rudio (1986), "for the human sciences, sometimes this is the only opportunity to study certain phenomena..." and "it requires for the researcher, readiness, attention, and preparation for the events in the interested research area".

**2nd Step:** Evaluation and knowledge about the exams and given diagnostic by each professional: neurologist, optometrist, physiotherapist, speech therapist, psychologist.

**3rd Step:** Data collection with the parents and research participants, aiming to know the participant history, once the disability can be consequence of multiple causes.

Interview was performed together with the Psychomotor Evaluation form that contemplated the items: main complaint, pregnancy, birth conditions, development, health, feed, sleep, psychomotor development, language, education and sociability. Such questionnaire was evaluated by specialists for the collection and final results.

**4th Step:** Interventions with 45 minutes weekly.

The activities are offered in the Philanthropic Association for the Protection of Blind People, in different environments. They are based on Sialuys (2010) methodology, writer, president and foundress of LARAMARA – Brazilian Association for Visual Impaired Persons Assistance. This methodology aims to inform, explain and guide the parents and other educators for choosing, using and producing toys and games to contribute to the scholar inclusion of blind and low vision children, offering ludic stimuli with independency and autonomy for daily activities.

Interventions are conducted according to a systematization flowchart, so they follow the same logical line of reasoning. This flowchart is divided into seven different steps, proposed by the Technical Assistance for Education Portal, in the chapter about Adapted Pedagogic Resources, published by the Education and Culture Ministry (MEC) in 2002. According to this proposal, each case should be structured with attention, once the diversity in the motor behavior of each subject occurs, as the result of their disabilities characteristics.

This method offers to the professional that works with blind or low vision people knowledge in the adapted motor activity area using strategies and resources, contributing to the professional formation, and systematizing data by an activity planning of Sialuys (2010) material and with planned and created strategies during the intervention.

### RESULTS AND DISCUSSION

Interventions follow the same sequence. However, this sequence can be differentiated, because a child can present an early development or it can be performed more than once, so the child does not feel unprepared in the beginning of the activity. In the first phase, the worked routine was the verbal presentation of the activity, and tactile material, always in accordance with the abilities and competences to be stimulated, such as: rolling, sitting, walking, jumping, dancing, balance and rhythm, special organization, tactile discrimination, sense of direction, lateral, temporal orientation, auditory decide, visual acuity, visual memory, order and sequence, coordination, social skills and emotions, perception, attention, reasoning, comprehension, and others.

In the second phase, exploration and recognition of the environment was performed, which allows the professional to acquire the basic requirements and techniques of orientation and mobility, to ensure security and to promote independent locomotion in the environment that the student will perform the required tasks (SEABRA JUNIOR, 2008). Thus, the children are able to create the mental map of the site, spatially orientate themselves, and organize their ideas, so they can safely move in the site where the activity will be applied.

The third phase begins with the exploration and interaction of children and toy, offering the material so that they recognize and explore it as they wish. However, blind or low vision people, because of the difficulty in sensory motor adaptation during movement learning, demonstrate various and unexpected disabilities (FONSECA, 1993); the task is verbally requested, but in some cases – which are listed below – the activity needs to be explained again, or be performed with the children, until they can exercise it alone. It is essential to reinforce the movement, showing it physically and verbally (CRAFT; LIEBERMAN, 2004, p.87).

It is know that a singularity of situations are presented to the physical education teacher, which requires adequate diagnosis and individualized prescription of exercises and motor activities, since each subject has its uniqueness. Then, it goes from the whole to the specific.

The participant J., five years old, is already inserted in regular class, is a low vision child that accompanies the interventions and is able to perform them successfully, since it is necessary to create different strategies and resources to stimulate him. His major difficulty is to focus on the activities that involve fine and gross motor skills, because this child has a great attention deficit; so, the challenges demotivate him, but his improvement is growing. The most used resources are larger materials, preferably in primary colors and not noisy, in order to stimulate the maximum of the residual vision, but also using other senses to explore and comprehend the world around (Sialuys, Ormellez, Briant, 2010, p.35). Then, the proposal is to make him finish the activities with autonomy and independence, using ludic strategies for the use and, especially, for facing the challenges with confidence.

The participant P., seven years old, blind and with intellectual disabilities (the observation medical diagnostic is not allowed by the mother), does not communicate nor move around alone, is dependent for changing clothes and eating, and uses diaper. The activities follow the same pattern described above, but the child has difficulties of comprehension, so it is necessary to perform all the activities with him. His major difficulties are concentration, balance, locomotion and expression. During the

intervention period it was observed an improvement in the auditory discrimination using activities that offer him a keener sensory capacity, that is, resources that contain sounds not so different so they can be better captured and discriminated in the future. During the last interventions, the child presented a great advance as he could move alone using some resources, such as swiss balls of medium size without rattle inside, not necessarily using our help.

The participant Y., two years old, blind, with sensibility to light, comes with all interventions frequently, and performs the activities with fear in the beginning, because is an insecure child; does not walk long distances alone, only with an adult holding his hand, and is afraid of noise because he cannot distinguish its varieties. His difficulty is tactile, because he does not explore what is unknown and soon rejects it. Using strategies and adapted resources, the child is trying to walk with no help, and is becoming less insecure about the sounds.

The participant G., six years old, blind, has physical disability in the lower limbs; he performs the activities with autonomy and independence within his limitations, is spatially oriented as well and has motor coordination. His difficulty is locomotion, because his disability impedes him to perform it as fast as the others, but with the interventions he has been shown to be struggling, and even with a slower pace, he can perform the activities with independence and autonomy.

The participant J.J., eight years old, blind, and with mild autism, cannot visualize a fixed point, so he does not focus. Hardly participate in the interventions, and as soon they start he disperses, becoming calm just when the grandmother arrives, when he goes away.

The participant B., eight years old, blind, physically disable in the upper limbs and cane user, performs the requested tasks with autonomy and independence; it is not necessary several explanations for his comprehension about the task direction and movements, but he has some characteristics oh hyperactivity, what requires patience, attention and readiness for any sudden movement.

The participant K., eight years old, has low vision, but his visual impairment is not high level; so, the child is able to perform all the activities with independence and autonomy, being the mentor student at the time of intervention.

In this context, it appears that major difficulty of the participants is the concentration to perform a task, what functions as a cycle, because with concentration to perform all the offered activities, the participant will not feel insecure and anxious. Being confident and self-assured, the participant will know what he does, how it should be done, and what the final result is. However, if a teacher neglects this complex perceptual motor sense, he will expose their students to face risks and feel insecure because of shocks and falls that cause injures, and ultimately to give up the challenges of movements and spontaneous gestures that physical activity provides (SEABRA JUNIOR, 2008); so, after getting confidence and secure, the child is able to achieve positive results, increasing his autonomy and independence which, in turn, take the child up to the stage of self-esteem. These results are achieved always using ludic strategies with no pressure, because once pressed the students do not perform the activities; moreover, resources are always adapted because each child is a unique person dependent of his visual capacity, whether reduced or absent. Activities are previously performed, but during the interventions they frequently need to be adapted to a better use.

Pedrinelli (1991, 1994) affirms that beyond the care with the adaptation of teaching resources, constitution of groups, and development condition of each student, it must be considered certain general pedagogic implications for visual impairment that facilitate the performance and success of the professional in reaching their objectives that, in this case, are numerous, because the children in the research do not have security, autonomy nor independence in relation to their movements.

It is observed from these data that the major need of the participants is to learn how to see better, it is, from the stimuli to the use of visual residue by the low vision student, the visual efficiency occurs. Moreover, it is important to encourage and train the auditory perception, providing oral and tactile stimulation as models of communication, teaching the concept of body-image and space, highlighting the need for variation of constant changes in methods and techniques, in order to avoid vices and chances to forget content.

## CONCLUSIONS

From the application of sensory motor activities, it was noted that every child, in his time, achieved or is trying to achieve independence and, consequently, the autonomy to perform small ludic and recreational tasks. The adaptations for children with low vision are usually related to colors, sizes and command, offering activities that stimulate residual vision so they can see better. With regard to blind children, beyond specific commands are also adaptations of sizes, textures, sounds and forms, since these children will see through the remaining senses that, in turn, help to minimize the absence of vision. Finally, the effective exercise of this intervention was to stimulate a greater range of motion, seeking an independent movement, or even discovering new motor possibilities more favorable to solution the routine problems, encouraging the use of their remaining senses.

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### **STRATEGIES AND RESOURCES APPLIED TO LUDIC ACTIVITIES FOR AUTONOMY AND INDEPENDENCY ACQUISITION OF BLIND AND LOW VISION CHILDREN.**

#### **ABSTRACT**

The present research aims to identify strategies and adapted pedagogic resources to favor the intervention of physical activity teacher that acts with special and inclusive education, in order to ensure more independency, autonomy and social inclusion to the disable person. The procedure includes evaluation, construction and/or adaptation of strategies and pedagogic resources necessary to the limitations and capacities of different disable groups that will be assisted by motor, ludic and recreational activities based on Siauly's method (2008). The project is developed in the Philanthropic Association for the Protection of Blind People of Presidente Prudente, which provides educational, therapeutic and technical formation work to their participants.

**KEYWORDS:** Visually impaired persons, psychomotor performance, adapted resources.

### **STRATÉGIES ET RESSOURCES PÉDAGOGIQUE APPLIQUÉE EM JEU POUR L'ACQUISITION DES INDÉPENDANCE ET AUTONOMIE DES ENFANTS AVEUGLES ET LA BASSE ENFANTS VISION.**

#### **RÉSUMÉ**

Le present travail a objetivé identifier stratégies et ressources pédagogiques adaptés pour favoriser la intervention du instituteur de éducation physique, travaillant en éducation spécial et inclusive pour assurer plus indépendance, autonomie et inclusion sociale. Comme procédure aura évaluation, construction et adaptation de stratégies et ressources pédagogique nécessaires d'accord avec les limitations et capacités pour différents groupes avec déficience qui seront aidés par activités motrice, ludique et récréative basées en méthodologie de Siauly's (2008). Le projet est réalisé dans la Associação Filantrópica de Proteção aos Cegos, Presidente Prudente, laquelle offre un travail éducatif, thérapeutique et de formation technique des participants.

**MOT-CLÉS:** déficience visuel, psychomotricité, ressources adaptes

### **ESTRATEGIAS Y RECURSOS APLICADA PARA LA ADQUISICIÓN DE LA AUTONOMÍA E INDEPENDENCIA DE LOS NIÑOS CIEGOS Y BAJA VISIÓN**

#### **RESUMEN**

Este documento tiene como objetivo identificar las estrategias y recursos adaptados para facilitar la intervención de un profesor de Educación Física que trabaja educación especial e inclusiva para asegurarse de que la persona con discapacidad mayor independencia, autonomía y inclusión social, como procedimiento tendrá la evaluación, la construcción y / o adaptación de las estrategias de enseñanza y los recursos necesarios debido a las limitaciones y capacidades de los diferentes grupos con discapacidad que son atendidos en las actividades de motor, juego y recreación basada en Siauly's (2008) metodología. El proyecto se lleva a cabo en la Asociación Filantrópica para la Protección de las Personas Ciegas en Presidente Prudente, un trabajo que ofrece la formación educativa, terapéutica y formación técnica a sus participantes.

**PALABRAS CLAVE:** discapacidad visual, psicomotricidad, recursos adaptados.

### **ESTRATÉGIAS E RECURSOS APLICADOS EM ATIVIDADES LÚDICAS PARA AQUISIÇÃO DE AUTONIMIA E INDEPENDENCIA DE CRIANÇAS CEGAS E COM BAIXA VISÃO.**

#### **RESUMO**

O presente trabalho tem a intenção de identificar estratégias e recursos pedagógicos adaptados de modo a favorecer a intervenção do professor de Educação Física, que atua na educação especial e inclusiva para que este garanta à pessoa com deficiência, maior independência, autonomia e inclusão social, como procedimento terá a avaliação, construção e/ou adaptação de estratégias e recursos pedagógicos necessários frente às limitações e capacidades para diferentes grupos com deficiências que serão atendidos por meio de atividades motoras, lúdicas e recreativas baseadas na metodologia de Siauly's (2008). O projeto é realizado na Associação Filantrópica de Proteção aos Cegos, em Presidente Prudente, a qual propicia um trabalho educacional, terapêutico e de formação técnica aos seus participantes.

**PALAVRAS-CHAVE:** Deficiência visual; psicomotricidade; recursos adaptados.