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A LOOK TOWARDS INCLUSIVE EDUCATION IN CAQUETÁ

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Abstract. Inclusive education adapts and embraces all children, adolescents and young people, with and without disabilities, it is adapted to their needs and contexts (economic, sexual preference, gender, ethnic, linguistic); it is a process of addressing and responding to the diversity of all students through participation in learning. The present study was carried out with the purpose of characterizing the student population with disabilities of urban and rural public institutions of the Department of Caquetá and its capital Florencia and to know through a documentary review those didactic teaching tools that allow the teacher to potentiate learning. of students with physical, intellectual, multiple and psychosocial disabilities. For the characterization, annex 6A was requested from the municipal and departmental education secretary. In the same way, through electronic sources, a literary search was carried out on the main studies that relate teaching practice and the potential of students with disabilities. The results reflect higher rates of disability in the student population between the ages of 11 and 14, particularly at the basic primary education level; with a higher incidence in males. Multiple, intellectual, physical and psychosocial disabilities are the most predominant and may be due to some individual and environmental particularities; if their clinical diagnosis, biochemical and genetic factors and variables that directly affect the behavior of these students are taken into account; it is possible to propose didactic tools that enhance their learning.

Keywords: Disability, Inclusive Education, Teacher Training, Inclusive Practices and Programs

UNA MIRADA HACIA LA EDUCACIÓN INCLUSIVA EN EL CAQUETÁ

Resumen. La educación inclusiva se adapta y abraza a todos los niños, niñas, adolescentes y jóvenes, con y sin discapacidad, se adecua a sus necesidades y contextos (económico, preferencia sexual, género, étnico, lingüístico); es un proceso de dirección y respuesta a la diversidad de todos los estudiantes a través de la participación en el aprendizaje. El presente estudio se realizó con el propósito de caracterizar la población estudiantil con discapacidad de instituciones públicas urbanas y rurales del Departamento del Caquetá y su capital Florencia y conocer a través de una revisión documental aquellas herramientas didácticas de enseñanza que le permite al docente potencializar el aprendizaje de los estudiantes con discapacidad física, intelectual, múltiple y psicosocial. Para la caracterización se solicitó a la secretaria de educación municipal y departamental el anexo 6A. Del mismo modo, a través de fuentes electrónicas se realizó una búsqueda literaria sobre los principales estudios que relacionan la práctica docente y las potencialidades de los estudiantes con discapacidad. Los resultados reflejan mayores índices de discapacidad en la población estudiantil con edades entre 11 a 14 años, particularmente en el nivel de educación

básica primaria; con mayor incidencia en el sexo masculino. La discapacidad múltiple, intelectual, física y psicosocial son las más predominantes y puede deberse a algunas particularidades individuales y del entorno; si se tienen en cuenta su diagnóstico clínico, factores bioquímicos, genéticos y variables que inciden directamente en el comportamiento de estos estudiantes; se logra proponer herramientas didácticas que potencializa su aprendizaje.

Palabras claves: Discapacidad, Educación Inclusiva, Formación docente, Prácticas y Programas inclusivos

Introduction

Colombia, a sovereign country located in the northwestern region of South America, is divided into 32 departments, including 1,123 municipalities and 5 districts; it currently has a population of approximately 51,049,000 inhabitants. In the year 2021, 3,974,522 persons with disabilities were registered, equivalent to 8.0% of the total population; among them, 45.3% were men and 54.7% were women, with a higher percentage in adulthood. While in the population with disabilities between 2 and 4 years it represented 4.6% of the total (UN Women, UNICEF, UNFPA, 2021). This prevalence varies according to geographic location: in the municipal capitals there is still a larger population of women with disabilities, while men are in the majority in populated centers and dispersed rural areas (DANE, 2022).

Regarding the Department of Caquetá, with a population of 502,410 inhabitants; among which 250,988 are men (50.0%) and 251,422 women (50.0%) (DNP, 2019), 13,575 persons with disabilities have been reported according to the Registry for the Localization and Characterization of Persons with Disabilities (RLCPDD), which corresponds to 2.73% of the total population (Bonilla et al., 2019); with Florencia being the municipality with the largest number (4,627 inhabitants), since 30% of the total population is concentrated in the capital city.

With regard to education, according to SIMAT (Integrated Enrollment System) records, 728 students with disabilities and exceptional talents were enrolled in the Department's educational establishments, which represented 18% of the total population registered in the educational system (Cuellar et al., 2021). In addition, it was estimated that 37.7% of people with disabilities have a primary school education, while this percentage is 26.9% for people without disabilities, a gap of 10.8 percentage points (p.p), 16.5% of people with disabilities have access to secondary education, 9.2 p.p. less than that of people without disabilities (25.7%). Higher education is represented with 14.3% of people with disabilities compared to 21.0% of people without disabilities, that is, a gap of 6.7 p. p (INCI, 2022), these gaps prevent access to the educational system; and one of the predominant reasons for not attending educational establishments is due to their disability condition.

In order to reduce the gaps that impede the access of students with disabilities to the educational system, the national government through the Ministry of National Education (MEN) and the Presidential Advisory Office have designed the Educational Attention Route, which seeks that all children, adolescents and young people have the opportunity to successfully enter the educational system. Through this program, differences are recognized as a value, which generates equitable learning environments without any type of discrimination.

Likewise, the national government has made alliances with the Ministry of Canada "Global Affairs Canada" and the Norwegian Refugee Council "Save the Children" in order to promote the "Vive la Educación" project, a project that has benefited hundreds of children from public schools in the department, guaranteeing the right to inclusive and quality education for the vulnerable population affected by the armed conflict. This program has an ethno-educational approach, aimed at the Afro-descendant community, allowing the construction of

a more inclusive, relevant and quality education in accordance with the needs, interests and social and cultural context (APC, 2020).

Here it should be specified that inclusive education is that which "adapts to and embraces all students" and adapts to their needs and contexts (economic, sexual preference, gender, ethnic, linguistic, etc.). In a broader sense it is seen as a process of addressing and responding to the diversity of needs of all learners through participation in learning (Ramirez, 2017, Camargo, 2018).

In an inclusive classroom a teacher faces the challenge of instructing students with different cultural and family backgrounds, socioemotional developments, as well as different learning approaches and, therefore; different educational needs, fostering the social well-being of all (Marchesi et al., 2021). In summary, from an inclusive classroom it is possible to enhance the skills and abilities of students with learning difficulties through the implementation of cooperative work, intelligences and socioemotional needs, considering their strengths and not their weaknesses, without the need to transform the children, since they have defined characteristics and the possibility of developing as individuals in a society. In short, what will a teacher require to improve the learning of his or her students and for the school to meet its goals and objectives of educational inclusion? The teacher will require; to be responsible and innovative, able to learn and design their own didactic teaching-learning tools, able to make flexible and make changes in curricular content (Gonzales and Triana, 2018), guarantee the permanence of students in the educational center, in addition to prioritizing the work between school and family.

Speaking of prioritizing the educational needs of students, it is worth highlighting the importance of some institutions that train and educate suitable people capable of instructing and teaching children, adolescents and young people with disabilities. A specific case is the National Institute for the Blind (INCI) which, in agreement with the departmental education secretary, has provided technical assistance to the educational community on the use and application of specialized technologies for blind and low vision people; teacher training in the practical technical use of Braille type printers, Braille line, magnifying glass and management of the JAWS screen reader and MAGIC magnifier, technological resources available at the Vive Digital point in the city of Florencia, which can be used as pedagogical resources for the teaching-learning of students with visual impairment (INCI, 2017). Likewise, it is important to highlight the importance of the "Luis Guanella" Foundation, which houses 130 children and young people with special needs, with severe hearing and cognitive disabilities and cerebral palsy; a foundation that emerged in 2008, due to the definitive closure of the Pilot Center for Special Education, a school that served people with disabilities (Luis Guanella Foundation, 2022).

In relation to the only research published in the last decade in the department of Caquetá on inclusive education, the study on the imaginaries and references that teachers have about the comprehensive educational care of students with disabilities in early childhood in educational institutions in the city of Florencia stands out; where it was evidenced that teachers do not know the current regulations on inclusive education, use few teaching-learning strategies or didactic tools and do not advance innovative organizational processes that allow the student to actively participate in the regular classroom. Therefore, of the 66 teachers surveyed, 59% stated that they were unable to comprehensively serve students with disabilities due to the lack of financial and technological resources, teaching materials and institutional infrastructure (Trujillo, et al; 2012). In another study conducted at the La Salle Educational Institution where the institutional inclusion index of 2.79 was measured taking as a reference the population of students with cognitive disabilities, it was concluded that the institution presents strengths and opportunities

for improvement, that the actions it develops in terms of inclusion are isolated and sporadic (Cubillos and López, 2022).

It is necessary to emphasize that teachers do not feel prepared to provide academic guidance to students with disabilities and that they require professional training to serve this population. However, there are educational establishments such as the Normal Superior, an official institution, which serves about 2,300 students, with the purpose of being trained for teaching at the preschool and elementary school levels. Currently, it advances courses on inclusive education and Flexible Educational Model (MEF), whose purpose is to empower students in training, with orientation in inclusive education, with differential approach (population with learning difficulties, ethnic, affected by violence, minors at social risk), from theoretical, pedagogical and normative foundations; and in the understanding of the conceptual bases of the Escuela Nueva system (Ardila, 2018).

For its part, the Municipal Secretariat of Education has the inclusive education program created for the attention of students with disabilities and exceptional talents according to Decree 366/2009; which regulates the pedagogical support services to this population at the levels, preschool, basic education, high school and middle school (Gámez, 2017). This regional entity provides psycho-pedagogical support in educational institutions where there are children classified as having a permanent disability; however, many teachers state that the Secretary of Education "is limited to making a characterization, but the accompaniment is occasional, they only classify and inquire and do not return".

In accordance with the diagnosis on inclusive education, the Development Plan year 2012-2015 "Prosperity for Florencians", states that; there is a deficient attention for the population with disabilities and exceptional talents that require to be attended in the regular classrooms of the Educational Institutions and teachers who serve as mediators or trainers (Gámez, 2017).

The purpose of this research is to characterize or typify the population of students with disabilities in urban and rural public institutions of the Department of Caquetá, including its capital city Florencia, and to know those inclusive practices (didactic tools or strategies) that allow teachers to enhance the learning of students with physical, intellectual, multiple and psychosocial disabilities.

Method

At the methodological level, this study was directed considering two approaches; 1) quantitative, supported by a non-experimental descriptive and comparative transactional design, 2) qualitative, based on the extraction of documentary information. Through the SAC (Sistema de Atención al Ciudadano) platform, an official letter was sent to the coverage offices of the municipal and departmental education secretariat, with the intention of requesting the databases of students enrolled in the SIMAT (Sistema Integrado de Matrícula), with any condition of disability. In addition, sociodemographic information on the population was requested, such as: municipality of residence, name of the educational institution where they study, level of schooling, age and sex (SAC, 2021).

For data analysis, principal component analysis was performed through multivariate statistics using IBM SPSS Statistics software and InfoStat student version, Excel for graphic design.

Finally, a synthetic analytical review was carried out to learn about inclusive practices aimed at enhancing the learning of students with disabilities, which involved a search of bibliographic information from previous studies extracted from documentary sources, such as academic and scientific databases, graduate theses and institutional repositories.

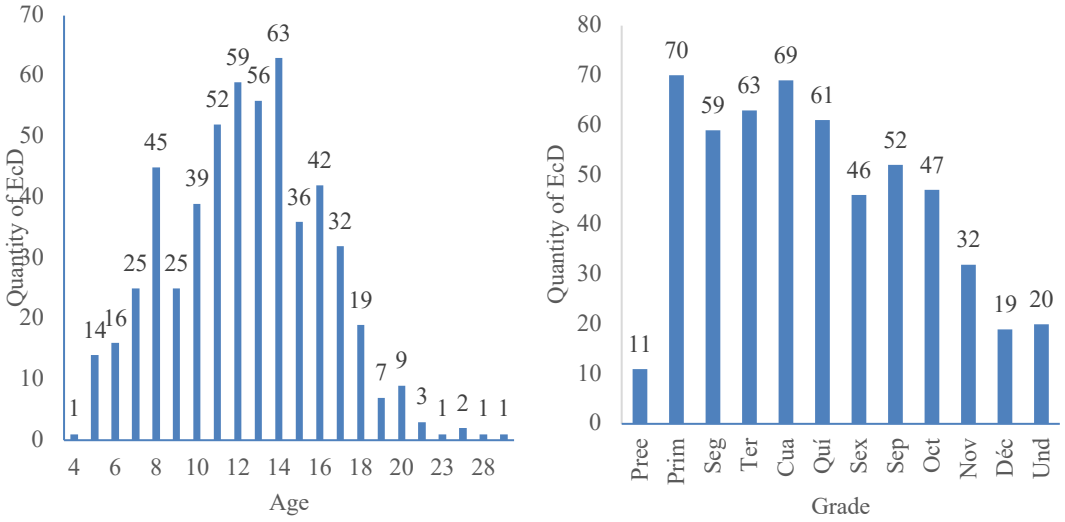
Results

Taking into account the databases provided by the municipal and departmental secretaries of education, students with disabilities (EcD) were characterized or typified according to the following categories indicated in Annex 6A of SIMAT (MEN, 2020); hearing impairment-user of Spanish (SAUC), physical limitation (L.F), multiple disability (D.M), hearing-user of Colombian sign language (SAULSD), psychosocial disability (DPS), systemic disability (D.S), visual disability-irreversible low vision (DVBVI), visual disability-blindness (D.V.C), permanent voice and speech disorder (T.P.V.H), autism spectrum disorder (T.E.A) and deaf blindness (S.C).

For the department of Caquetá, 549 EcD records were obtained (226 in the rural area and 323 in the urban area), represented in females (41%) and males (59%), aged between 4 and 32 years, with the student population aged between 11 and 14 years being the most affected by this type of condition (Figure 1a). The highest rates of disability are represented in elementary school (5 grades: first, second, third, fourth and fifth), with a total of 325 students, followed by junior high school with 174 students (Figure 1b). As for the city of Florencia, 646 cases of EcD were determined, enrolled in 30 urban and rural educational institutions; it should be noted that the municipal secretary did not provide the sociodemographic data of this student population.

Figure 1

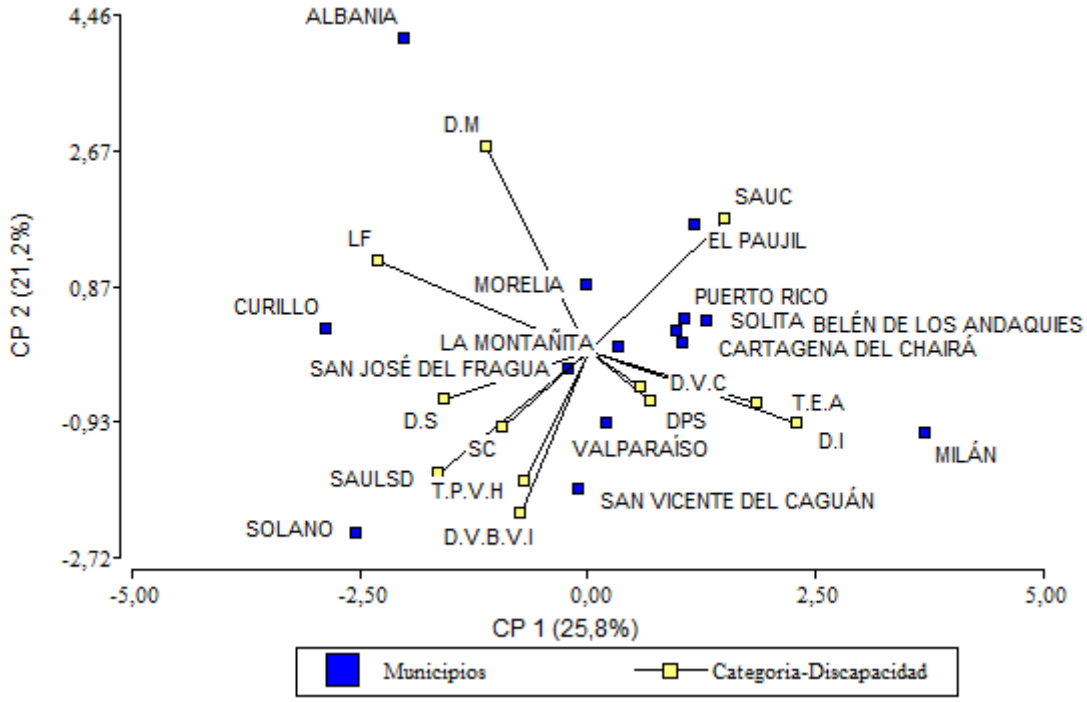
a) Age of students vs. number of EcD and b) Grade or academic level vs. number of EcD



Similarly, a Principal Component Analysis (PCA) was performed on the data matrix considering as classification criteria the municipalities of Caquetá, excluding its capital Florencia, and as quantitative variables, all the disability categories. This analysis explained 47% of the total variability for the two axes (Figure 2); the first principal component (CP1) contributed 25.8% of the total accumulated variability, with a characteristic root greater than unity, the SAUC category presented a higher incidence in the municipalities of Paujil, Puerto Rico, Solita, Belén de los Andaquies and Cartagena de Chaira, separating towards the negative end the disability categories D.S and LF, with a higher incidence in the municipalities of Morelia, Curillo and San José de Fragua. Meanwhile, the second principal component (CP2) explained 21.2% of the total variability, the D.M category, with incidence in the municipality of Albania, separated towards the negative end the categories SAULSD, SC, T.P.V.H, D.V.B.V.I, DPS, D.V.C, T.E.A and D.I; whose strong dominance is present in the municipalities of Solano, Valparaíso, San Vicente del Caguán and Milán.

Figure 2

Principal component analysis of the data matrix relating the municipalities of the department of Caquetá and the disability categories.

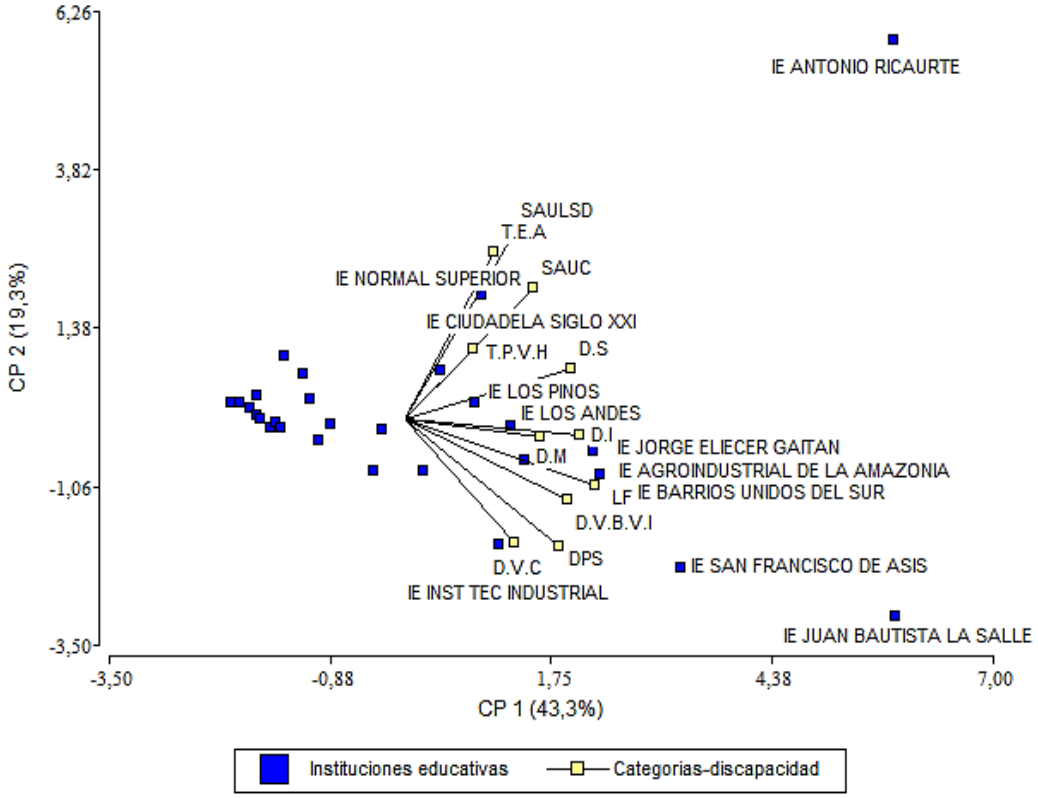


The categories of disability with the greatest predominance in the educational institutions of Caquetá are intellectual disability with a report of 218 students, followed by multiple disabilities with a record of 74 students, then physical limitations with a number of cases of 71 students and finally psychosocial disability with 35 students. Taking into account these disability categories, the educational establishments with the highest number of students enrolled are I.E instituto nacional de promoción social, I.E sagrados corazones, I.E verde amazónico, I.E Dante Alighieri, I.E agroecológico amazónico, I.E agroecológico mixto, I.E Internado rural de solita, I.E don Quijote, I.E Gabriela mistral and I.E Marco Fidel Suarez.

Regarding the PCA performed to the data matrix on the characterization or typification of students with disabilities, the educational institutions of Florencia (urban and rural) where EcD has been enrolled were taken as classification criteria and as quantitative variables, the categories of disability, which explained for the two axes 62.6% of the total variability (Figure 3); the first principal component (CP1) contributed 43.3% of the total accumulated variability, with characteristic root greater than unity, it was evidenced that the categories of disability DS, T.P.V.H, SAUD, T.E.A and SAULDS are closely correlated at the positive end of this component, with a higher incidence in Los Andes school, Los Pinos school, XXI century school and Superior normal school. Meanwhile, the other disability categories such as; DI, D.M, LF, D.V.B.V.I, DPS and D.V.C, are correlated at the negative end of CP2 (19.3% of the total accumulated variability), with higher prevalence in the IE Jorge Eliecer Gaitán, IE agro-industrial de la Amazonia, I.E Barrios Unidos del Sur, IE San Francisco de Asís, I.E Juan Bautista la Salle and the Instituto técnico industrial. In addition, it was found that the largest number of students with multiple disabilities are enrolled in these educational institutions (331 records), followed by intellectual disabilities (90 cases).

Figure 3

Principal component analysis of the data matrix relating the educational institutions of Florencia and the categories of disability.



Discussion and conclusions

Population characterization is a descriptive type of analysis based on a set of quantitative and qualitative data. In this study the characterization was carried out based on the population of students with disabilities, where some sociodemographic variables were considered such as; sex, age, place of study and academic level. The types of disability were considered as categories of analysis, understood as those codifiable qualitative expressions that allowed the analysis and interpretation of the results in a clear and precise manner.

Without further ado, disability can be defined as those negative results of the interaction between individual particularities (activities and participation, organic functions, anatomical structures and environmental barriers (physical, attitudinal, communicational, normative), which prevent their full participation in society (Cuenot, 2018; DANE, 2022). What according to the concept of disability itself, this disability is classified into nine groups: behavior, communication, self-care, locomotion, body disposition, dexterity, situation, aptitude and other activity restrictions (Diaz, 2017).

In the educational context, according to Jerez and Sandoval (2018), in August 2018 the enrollment of students with intellectual-cognitive disability in Colombia represented 53 % of the total enrollment, followed with 7 % psychosocial disability. This national trend is also evident in this study, when characterizing and typifying the population of students with disabilities in urban and rural public institutions in the department of Caquetá, including its

capital city. Of the 1,195 students enrolled, multiple disabilities (33.89%) and intellectual disabilities (25.77%) are the most common impairments, followed by physical disabilities (11.46%) and psychosocial disabilities (7.69%), with a higher incidence in children and adolescents between 8 and 16 years of age, and predominantly in males.

Likewise, this predominance according to age and sex is consistent with the results of Álzate and Perea (2020), in their first population and national bulletin on persons with disabilities, which showed that disability affects mostly men (50.1%), with respect to women (48.9%). Children and adolescents (0 to 14 years old) represent 8% of the total population, while adults represent 39%. According to sex, disability predominates in boys (9.3%) and young men (17.3%), with respect to girls (6.3%) and young women (12.8%). According to the main diagnosis, the most frequent diseases in children, adolescents and young people with disabilities are mental and behavioral disorders; understanding these as symptomatic, psychological development, mood and emotional disorders; mental retardation, schizophrenia that usually appear in childhood and adolescence (Álzate and Perea, 2020).

If we leave aside the statistical data and elaborate a diagnosis of the social reality in which these students live, we could consider some individual and environmental particularities that would provide answers to such statistics. For this reason, it is important to address the possible causes of the highest rates of intellectual, multiple, psychosocial and physical disabilities. Here it is worth mentioning that among the causes of disability are: 1) illness, 2) advanced age and 3) birth (DANE, 2022).

It is worth remembering that the department of Caquetá has witnessed a violent period derived from the armed conflict caused by illegal groups such as the FARC guerrillas, ELN and dissidents, United Self-Defense Forces of Colombia (AUC), Black Eagles and Commandos sin fronteras, which have caused terror, death, disappearances and forced displacement in a war for the control of cocaine corridors. For many farmers in Caquetá, illicit crops represent the product with the best economic demand, in areas where difficult access prevents better income from the sale or marketing of other food products.

The national government has opted for aerial spraying with glyphosate, a strategy designed to control and eliminate coca plantations quickly and safely. However, this strategy has been an eradicator of the environment, health and illicit crops. In terms of health, glyphosate spraying has resulted in fertility consequences, miscarriages and possible future physical and cognitive disabilities and autism in the fetus during pregnancy. With respect to autism findings demonstrated high urinary glyphosate levels (2.25 ug/g-34.4 ug/g creatinine) in triplets with autism and described contaminated or genetically modified foods as possible sources (Shaw et al., 2017). On the other hand, a study showed a significant relationship between a child's exposure to glyphosate in the first year of life and the possibility of intellectual disability (Ehrenstein et al., 2019). The above study coincides with that reported by Garry et al. (2002), who indicated that offspring of farming parents were 3.6 times more likely to have attention deficits compared to offspring of non-farming couples.

Researchers from the Universidad Univalle (Colombia), believe that the resumption of glyphosate spraying by the National Government to eradicate illicit crops is neither convenient nor prudent, since 79 research studies published in indexed scientific journals refer to the harmful effects of glyphosate on the reproductive health of men and women, as a consequence of direct or indirect exposure to this spraying at any stage of life. Harmful effects such as spontaneous and early miscarriages, as well as preterm births during gestational development. But also, several types of malformations, in addition to DNA damage, attention deficit and intellectual disability (Univalle, 2020).

Because of the armed conflict, many children, young people and adolescents suffered strong psychosocial impacts as they were disintegrated from the family nucleus, losing cultural and family practices, moral, socio-cultural and community damage, damage to the notion of justice and the institutions that represent it (Charry, 2016), which, generates stigma, fear and ignorance; limiting full participation on equal terms with others.

According to Álzate and Perea (2020), 15% of people with disabilities stated that they were victims of the armed conflict, and this affects the mental health of the majority of the Colombian population especially in rural areas (Bermúdez and Garavito., 2019). In relation to the problems originated by forced displacement, families may present various types of mental illnesses such as depression, anxiety and post-traumatic stress disorder, all related to exposure to violence (Bermúdez and Garavito, 2019). The most common disorder is post-traumatic stress disorder, followed by depressive and eating disorders. According to Barrera et al. (2017), children and adolescents with PTSD may have a poor neuropsychological profile on tasks of attention, memory, executive function, and emotional regulation.

It can be concluded that the armed conflict has led to the rupture of socio-affective ties and family fragmentation, affecting people's stability, well-being and health.

On the other hand, as described in this study, in the educational institutions of Caquetá and its capital city, Florencia, the highest rates of multiple disabilities, intellectual disabilities, physical and psychosocial limitations predominate; for this reason, it is important to know those inclusive practices that help teachers to enhance student learning.

In relation to multiple disabilities, it is a person who presents a combination of two or more disabilities grouped together, whether physical, sensory, mental or intellectual, with needs of different types, supports and reasonable adjustments, which require the application of activities and work techniques according to their condition. Such disability can exhibit different levels of performance, which allow exposing the performance in life as it is very different from one to another, this depending on the severity and the mix of their disabilities, their possibilities at the functional, communicative, social and learning level (Secretaría de Educación, 2018).

These levels of performance can be high level, determining students with multiple limitations who demonstrate skills in problem solving, capable of leading a normalized life and teaching; medium level, students who present some difficulty in problem solving, leading to a semi-independent life; and low level of performance, determining students who present serious limitations for their communication, in basic aspects and autonomy.

The academic performance of students with multiple disabilities can be heterogeneous and varied; some characteristics to consider: 1) exhibit generalized delays in their psychomotor development, which causes difficulties in movement and mobility; 2) lower than average cognitive capacity; 3) the two previous characteristics cause difficulties in the knowledge and organization of the world around them; 4) have difficulties in expression and communication (verbal and nonverbal), since most students tend to experience the world in different ways, their language is not defined by the common language they know but by gestures, objects, movements, among others; 5) alterations are generated at the sensory level (visual, tactile and auditory); 6) hypersensitivity or hyposensitivity to physical, social or emotional stimuli of the environment; 7) they may present unexpected or unusual emotional reactions, as well as excessive emotional dependence, also stereotypies, self-injury and aggression and 8) dependence for the performance of activities of daily living, difficulty or inability to establish social relationships (SEP, 2011).

Below are some didactic strategies or tools that have been used to carry out the evaluation of a student with multiple disabilities; first, the Bear/Star Project is highlighted: It is

an assessment strategy designed by Maria Bove, a school integration specialist at Castleton University in Vermont (USA), which is applied to children from 0 to 3 years of age; when applied to children from 4 to 12, it is called Project Star (Castillo et al., 2021). This is an activity in which the entire work team meets and shares the information they have about the student. It constitutes the starting point for the elaboration of the student's dynamic functional profile.

Secondly, the Basic Skills Inventory; this tool was designed by Silvia Macotela and Martha Romay, in order to evaluate in a descriptive and individual way children with probable developmental delays, this evaluation is very important for any student, since it allows identifying and describing developmental characteristics. The term "basic skills" refers to the behaviors contained in the inventory, which constitute the basis for the subsequent learning of more complex repertoires, and it is with these behaviors that an educational intervention should begin, using the content to delimit objectives and activities within the planning (Castillo et al., 2021). The Inventory evaluates 726 skills grouped into four areas of child development: basic area that includes cognitive skills related to learning in general; visual-motor coordination area that incorporates skills related to gross and fine body movements; personal-social area that refers to skills related to personal care and independence, as well as socialization skills, both related to adaptive behavior; and communication area that includes expressive and comprehensive language skills.

Finally, the communicative map designed by María Bove is a specific tool for students with disabilities who have not developed an oral or conventional language. For the realization of such a map, it is necessary to understand the definition of communicative functions and forms. Communicative forms refer to the way in which the person communicates what happens to, desires or dislikes him/her. There are seven: context cues, movement cues, object cues, natural gesture cues, associated objects, line drawings, pictures, formal signs/speech, reading and writing. Its elaboration takes two steps: data collection and elaboration of the map itself (Castillo et al., 2021).

For data collection, the communication teacher calls a meeting with different people who live with the student on a daily basis and know him/her, such as the group teacher, the interdisciplinary team, various family members and the evaluator, and will ask them different questions, each of which is represented by a figure. The figures and questions are: who is it and what is it like, pink heart? what things do you like, orange circle? what things don't you like or what are you afraid of pentagon green? what are your wishes, yellow star? what are your dreams, blue cloud?

For example: if the question is what things they like, give each participant three orange circles and they should write in each one the situation, activity, object, food, etc., that they think the student likes the most; afterwards, each participant reads the answers they wrote, sometimes they will agree on the answers, sometimes they will give information that a member does not know, or information that was not considered but that is convenient to do so because it describes the student better. From the answers given, the three answers that have been agreed upon by the greatest number of people and that describe the person are selected among all the participants; it may happen that a response is selected that, although it was not written by the majority of the people gathered, is considered representative of the student. This process is repeated with each question (Castillo et al., 2021).

Intellectual disability or intellectual development disorder is characterized by a low capacity to reason and understand abstract or complex information, which has a negative impact on school learning. It is characterized when the person does not learn quickly, nor remembers things as well as other people of his age, and his ability to relate to others is altered. In addition, this type of disability limits the students' ability to adapt or interact with their environment

(family, cultural and institutional), which can be an obstacle or an enabler. This limitation has a close relationship with other neurodevelopmental disorders, such as autism, motor or sensory disorders (hearing, vision), severe sleep or feeding disorders, epilepsy, anxiety, depression and emotional regulation disorders (Portes, 2020).

The multidimensional assessment is a good didactic strategy that the teacher can use to assess the learning of a student with intellectual disabilities, since it manages to incorporate in this instrument the intellectual abilities, adaptive behavior, physical, mental and social health of the learner (Tapia, 2013). In this way, it is possible to propose appropriate strategies for learning, accompaniment and professional support, which leads to a better quality of life and greater participation in society (Portes, 2020).

For the design of new didactic tools, it is suggested to intervene in the student population with moderate cognitive disabilities; therefore, the aim is to improve their academic performance, train their attention and memory by using adapted psychoeducational strategies, taking into account brain plasticity and multisensory methodologies.

On the other hand, physical disability is classified as sensory, corresponding to the type of people who have lost their visual capacity (blindness or low vision), hearing (mild, medium, moderate, moderate, profound, cophosis), those who have problems when communicating or using language and motor limitation (upper and lower limbs, etc.) (MEN, 2020). To understand in depth this type of disability, it is important to know some functions of the central nervous system, mainly "the brain."

Anatomically, the cerebrum is known to be part of the encephalon, which consists of three main areas: the cerebrum itself, the cerebellum and the brain stem. The brain is located at the end of the spinal cord, inside the skull, it is an organ that centralizes the activity of the nervous system, it is located in the head; near the main sense organs such as vision, hearing, balance, taste and smell. It controls what is thought and felt, what is learned and remembered, even how we move (Hirsch, 2019). In addition, in it resides the ability to dictate the orders that regulate the human body, i.e., movements, sensations (feelings).

The brain is divided into two parts, the left and right hemispheres. Both are necessary and important for coordinating the body's functions, including learning, movement, sensitivity, behavior and the senses, which in turn are composed of the temporal, parietal, frontal and occipital lobes (Huang, 2021)

In terms of frontal lobe functions, the frontal lobe is characterized by its role in the processing of cognitive functions such as planning, coordination, execution and control of behavior. It also makes goal setting, foresight, language articulation and emotion regulation possible (Triglia, 2015). If a student has difficulties in the central part of the frontal lobe, they may become apathetic, inattentive and unmotivated. Thinking slows down and answers to questions are very slow. In addition, this lobe may have seizures or frontal lobe epilepsy, which may be due to abnormalities such as tumors, stroke, infection or traumatic injury. Depression and anxiety are common conditions in people with epilepsy.

Similarly, the parietal lobe, is responsible for processing sensory information coming from all parts of the body, such as touch, temperature sensation, pain and pressure (Beltran, 2018a). Verbal language production, memory development and mathematical reasoning. It also makes movement control possible due to its proximity to the frontal lobe planning centers.

According to the latest research, the parietal lobe is one of the brain regions most involved in the development of consciousness, that is, our "self". This structure contributes enormously in everything that has to do with human consciousness, from the development of moral values to reflection about what is happening around us or our personality (Beltrán,

2018a). This lobe is strongly involved in determining our mood and self-concept. In other words, much of what makes us human is born in this parietal lobe.

Likewise, the occipital lobe; it is in charge of processing visual information (Triglia, 2015). It plays a crucial role in the recognition of objects whose light is projected onto the retina, although by itself it does not have the ability to create coherent images. Occipital lobe disorders can cause visual hallucinations and illusions such as a) visual hallucinations (visual images without external stimulus) and b) visual illusions (distorted perceptions) can take the form of objects that appear larger or smaller than they actually are, objects that lack color or objects that have abnormal color (Huang, 2021).

Finally, the temporal lobe has the functions of generating memory and emotions, processing immediate events in recent and long-term memory, storing and retrieving remote memories, interpreting sounds and images, allowing us to recognize other people and objects, and integrating hearing and speech (Huang, 2021). The auditory cortex is the set of neurons in the temporal lobe specialized in receiving information coming from the sense of hearing in the form of nerve impulses and "decoding" it, i.e., transforming these electrical signals into the perception of sounds as such (Beltran, 2018b). Without this area of the temporal lobe, we would not be able to hear.

William James, father of psychology in the United States, wrote in his book "The energies of men" (1907) that we make "use of only a small part of our possible mental and physical resources."

On the other hand, physical-motor disability involves brain functions that send information to the body through the nerves, about how to move, these are; sensitive, the brain can feel certain changes or internal and external stimuli; integrative, sensitive information is analyzed and stored, then decisions are made and motor, is the response derived from all the stimuli obtained (Secretaria de Atención a Personas con Discapacidad, 2015).

In many school spaces, students can be observed with difficulty walking, some do not move their arms and hands properly, but they can perform various academic activities. Given this circumstance, it is worth asking: what indicators should be taken into account when observing the physical movements of students, in order to determine their possibilities of participation? These movement indicators can be: static positions (student stands on his/her own, maintains balance, someone holds him/her while walking, changes position; from standing to sitting, from sitting to floor, from floor to standing, etc.), ball skills (catching, throwing, kicking), grasping and manipulation (ability of the hand to hold an object, muscle tone and strength in the hands, trunk and head control, ability to release and bilateral development, and perceptual functions, such as visual acuity, visual field and visual tracking (Sáez, 2010).

Students with physical disabilities present high and low levels of self-concept (an individual's idea or image of him/herself). This level of self-concept decreases in students when activities requiring motor competence, such as physical education or athletics and low contingency persist, as they have difficulty differentiating between factors leading to success or failure (Varsamis, & Agaliotis, 2011). Although they are more focused on task accomplishment and self-improvement.

The didactic learning tools that the teacher can use to enhance oral language in students can be: communication boards, product labels, miniature objects, cut-outs, wrappers, stamps or photographs. However, it is recommended to design didactic tools for the learning of children diagnosed with physical disabilities (fine and gross motor skills).

Finally, psychosocial disability is a condition itself of mental or psychological illness caused by a set of behavioral or psychological symptoms that cause distress in a person's social and occupational functioning (Suarez and Chalarca, 2019). Similarly, psychosocial disability is derived from a mental disorder and its inadequate interaction with its environment (educational, social, work and family activities), but is not related to intellectual disability, in which it has biochemical and genetic factors, where symptoms usually present in adolescence (López et al., 2021). Nor is it related to sensory and physical limitations. A person with psychosocial disorder presents great difficulty in knowing themselves, since they do not have clarity of thought and reasoning, they do not realize their real situation (Vega, 2018).

Students with psychosocial difficulties suffer from stigmatization, social attitudes, stereotypes, discrimination, prejudice; derived from social phenomena such as attitudes (cognitive, affective and behavioral), which are differentiated but interrelated and basically refer to how we classify or categorize people or things in terms of good/bad, desirable/undesirable and approachable/rejectable. As for social stigma, it is understood as "a set of attitudes, of negative connotation" towards a minority social group due to their differential condition, which creates in the social consciousness a negative stereotype towards them (Vega, 2018). Within mental illnesses there can coexist different types of alterations, which can be of thinking, emotional, behavioral, perception and interpersonal relationships. These disorders include depression, generalized anxiety, schizophrenia and personality disorder (bipolar obsessive-compulsive), which can affect anyone, regardless of age, race, religion or social class (WHO, 2020).

The limitations faced by people with psychosocial disabilities are not only medical issues, but involve multiple social domains including school, work, family life, social participation, and contacts with social welfare agencies (Lindqvist and Sépulchre 2016). In this study we were unable to find bibliographic information on didactic tools for teaching students with psychosocial disabilities. For the design of these tools, it is suggested to take into account the cultural patterns, social dynamics, intrapersonal and interpersonal intelligences of these students.

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