

PODIUM

Journal of Science and Technology in Physical Culture

Volume 19
Issue 2

2024

University of Pinar del Río "Hermanos Saíz Montes de Oca"







Original article

Methodology for teaching-learning futsal adapted for students with visual disability

Metodología para la enseñanza-aprendizaje del futsal adaptado para estudiantes con discapacidad visual

Metodologia de ensino-aprendizagem de futsal adaptada para alunos com incapacidade visual

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Received: 01/18/2024

Approved: 03/21/2024

ABSTRACT

The study is aimed at understanding to meet the inclusion needs of students with visual disability during the practice of futsal in Physical Education classes, to reduce their fear of sport, improve their self-esteem and raise awareness among the family and teaching staff in



their radius of action and that they are accepted in each of their training sessions. The objective focuses on developing a methodology for teaching-learning of adapted futsal, for students with visual disability who, from an education inclusive guarantees a better quality of life; in this way, their performance is improved and their physical and mental well-being is promoted. During the research, documentary review, scientific observation and interviews were used as empirical methods, which allowed to gain in-depth knowledge of the background, current and prospective state of the problem, as well as to design the possible solution. The results obtained are oriented towards a transformation from the curricular adjustments of the psychological, social, communicative and physical needs of the students; thus, the methodology makes it clear how to work from the different contexts, the methodological recommendations and the requirements to take into account, based on the visual disability presented and the way of evaluating. Such efforts favor equality of opportunities and cooperation as social beings in the educational environment where he/she is developed.

Keywords: curricular adaptations, visual disability, Education Physical, Futsal adapted

RESUMEN

El estudio está dirigido a la comprensión para atender las necesidades de inclusión de estudiantes con discapacidad visual durante la práctica del futsal en las clases de Educación Física, poder disminuir su miedo hacia el deporte, mejorar su autoestima y sensibilizar a la familia y al personal docente en su radio de acción y que sean aceptados en cada uno de sus entrenamientos. El objetivo se centra en elaborar una metodología para la enseñanza-aprendizaje del futsal adaptado, para estudiantes con discapacidad visual que desde una educación inclusiva garantice una mejor calidad de vida; de esta forma se mejora su rendimiento y se promueve su bienestar físico y mental. Durante la investigación se utilizaron como métodos empíricos la revisión documental, la observación científica y la entrevista que permitieron conocer a profundidad los antecedentes, el estado actual y prospectivo del problema, así como diseñar la posible solución. Los resultados obtenidos están orientados hacia una transformación desde los ajustes curriculares de las necesidades



psicológicas, sociales, comunicativas y físicas de los estudiantes; así, la metodología deja claro cómo trabajar desde los diferentes contextos, las recomendaciones metodológicas y los requisitos a tener en cuenta, a partir de la discapacidad visual presentada y la manera de evaluar. Tal empeño favorece la igualdad de oportunidades y cooperación como seres sociales en el contorno educacional donde se desenvuelven.

Palabras clave: adaptaciones curriculares, discapacidad visual, Educación Física, Fútbol adaptado

RESUMO

O estudo tem como objetivo compreender como atender as necessidades de inclusão dos alunos com deficiência visual durante a prática do futebol nas aulas de Educação Física, para diminuir o medo do esporte, melhorar a autoestima e conscientizar a família e a equipe docente. Raio de atuação e que sejam aceitos em cada uma de suas sessões de treinamento. O objetivo se concentra no desenvolvimento de uma metodologia de ensino-aprendizagem do futebol adaptado, para alunos com deficiência visual que, desde o ensino inclusivo garante melhor qualidade de vida; desta forma, o seu desempenho melhora e o seu bem-estar físico e mental é promovido. Durante a investigação foram utilizados como métodos empíricos a revisão documental, a observação científica e as entrevistas, que nos permitiram conhecer a fundo o contexto, o estado atual e prospectivo do problema, bem como desenhar a possível solução. Os resultados obtidos orientam-se para uma transformação a partir dos ajustes curriculares das necessidades psicológicas, sociais, comunicativas e físicas dos alunos; assim, a metodologia deixa claro como trabalhar de os diferentes contextos, as recomendações metodológicas e os requisitos para levar em consideração, com base na deficiência visual apresentada e na forma de avaliar. Tais esforços favorecem a igualdade de oportunidades e a cooperação como seres sociais no ambiente educacional. Onde ELE eles desembrulham.

Palavras clave: adaptações curriculares, incapacidade visual, Educação Físico, Fútbol adaptado



INTRODUCTION

Guarantee that each individual has access and is benefited from equal educational opportunities to advance in his/her learning process is a global challenge. The prevailing need to ensure inclusion and equity as foundations for an education quality is reaffirmed in the objective 4 of the Agenda 2030. From the Convention of UNESCO in 1960, topics are addressed against discrimination in the sphere of teaching, as well as in other international treaties on human rights that prohibit any form of exclusion or limitation to educational opportunities, based on differences perceived or of social character as sex, gender, ethnic and social origin, language, religion, nationality, economic status and capacity.

One of the main problems that most schools currently have are their vision of the attention to the diversity very related with the classic model that has characterized Special Education, called model of the deficit. This perspective legitimizes a vision of special educational needs decontextualized from the rest of the classroom that permeates the perception social of the themselves (Arnaiz, 2020).

Educational inclusion is related to access, participation and achievement of all students. According to Ayala et al. (2023) the development of inclusive education involves identifying and eliminating barriers to learning and participation present in the cultures, the policies and the practices of the educational centers.

There is total agreement with Arnaiz and Haro (2020) when they express that after describing where the education inclusive goes, and the challenges to the which it faces, we immerse in participatory action research scenarios to narrate the experiences of the processes of accompaniment developed with the educational centers. Hence, the educational environment has to design programs that have into account the twide diversity of characteristics and needs, which makes it possible for each individual to feel identified and valued by the attributes that become him/her unique.

The treatment and response, both educational and social, that has been given to people with disability has varied along the history, in function of the predominant model in each



moment and place (Darretxe et to the., 2016). Inclusion in the educational field must be one of the factors to be taken into account by teachers, since it improves the quality of life of people with disabilities and encourages his/her inclusion in the society (Hernandez, 2022).

Contrera (2018) states that it is advisable the inclusion of the sport adapted in Education Physics (PE) in primary school, especially in relation to improving social and civic competence of the disabled. It is clear that sport and PE in the school curriculum that serves as its main objective the comprehensive training of the student in the biopsychosocial field must become a reality, since through it all cognitive, socio-affective and motor aspects are cultivated (Vila et to the., 2020).

This practice allows boys and girls in this condition the opportunity to be leaders and improve the trust and self-esteem, favor enlarging his participation in the school and community activities, be dynamic and participate of active way with their companions, components necessary to his health physical and mental.

Thus, inclusive sport is focused on sports practice where there is no discrimination against their practitioners based on their abilities or conditions and facilitate participation of individuals with any type of disability, in the same team, with respect to the objective of the discipline that practice.

The research presented focuses on the treatment of people with visual disabilities. The visual deficiency is presented in those people with loss or decrease of the function of the sense organs and causes the deprivation of some stimuli coming of the world abroad (Mendieta and Valencia 2016).

In the case of people with visual disability, the practice of the sport supposes an element of integration and improvement of their quality of life in their different categories, ages and levels of assimilation, allows them to socialize, train and compete on equal terms with the rest of the athletes who accompany them in the challenge. Among the sports to practice blind or visually impaired people, there is adapted futsal, which, as Perez et al. (2012) state, is a modality or sport practice adapted at people with disabilities or special health



conditions, either because a series of modifications for ease their practice either because the own structure of the sport allows it.

The Constitution of the Republic of Ecuador (2008), in its Article 26 stipulates that "the Education is a right of people throughout their lives and an unavoidable duty and "inexcusable of the State" and, in its Article 343, it recognizes that the center of the educational processes is the subject who learns; on the other hand, this same article establishes that "the national education system will integrate an intercultural vision in accordance with geographical, cultural and linguistic diversity of the country, and respect for the rights of the communities, towns and nationalities." (2008, p.127).

The Organic Law of Intercultural Education, in Article 2, "Educational activity is developed in accordance with the following general principles, which are the philosophical, conceptual and constitutional foundations that support, define and govern decisions and activities in the educational field" (2015, p.9). Likewise, it endorses the conception of the student as the center of the educational process, with a flexibility and property of contents, processes and methodologies that is adapted to their needs and realities fundamental.

No less important, Article 10 of the same Regulation stipulates that "The national curricula can complement according to the cultural specificities and peculiarities of the various educational institutions that are part of the National System of Education, in function of the particularities of the territory in which it operates." (2015, p. 20).

An important role is played by the school curriculum proposed by the administrations, which acquires an open, flexible or adaptable character to the needs or characteristics of the educational community in which the educational centers are immersed. This conception allows the implementation of a curricular adaptation process from the first level of concretion (Decrees of Teachings) until the adaptation curricular individual.

The curricular adaptations aren't no more than answers to the need of learning of the students, expressed through educational strategies. Curriculum adaptation allows moving from the current zone of development to the zone of proximal development of students, and



above all prepares them to achieve new goals and acquire new learning that stimulate the development of the personality.

The curriculum of students with special educational needs cannot be other than the ordinary resume of the mandatory teaching, the timely adaptations more or less specific are carried out in it, to address the differences that arise. In this ambit is in which the concept of curricular adaptations is stated. Curricular adaptation is understood as the accommodation or adjustment of the educational common offer to the possibilities and needs of each one (Martin, 1989).

In the practice of the PE for schoolchildren with special educational needs is included those that present visual deficiencies and inside of them the blindness. In this study are considered blind, those people who do not have the perception of light or differentiation color (Sanchez and Gonzalez, 2020).

Among the sports activities within the PE programs for this type of disability is found adapted futsal or blind futsal that constitutes a modality for people with low vision or blind. Its practice in the educational field can be used for providing a physical and mental health of the students.

Futsal for the blind began in some educational institutions in Europe, it began as a space of distraction in the schools, destined many of them to sport, they did not have the necessary structures, and this caused the fun and safety of the players to be lost, which is why made the necessary adaptations to provide greater dynamism to the game, since the dimensions of this sport practice were different to the football that was being played used to.

The characteristics of futsal in people with visual difficulties have as axis strength, endurance and at certain times speed, in this sense, it is important to have some general and specific bases of this sport. During the development of the matches, there may be a number of interruptions in the game caused by different external factors, which represents a significant difference in terms of the physical requirements for the athletes in situation of disability.



Another significant aspect is the coordination, of vital importance for a good sports development in futsal, which has as its axis the differentiation, coupling, orientation and balance as determining factors in the motor development of athletes in their performance in the field of play and enable better execution of the technique and greater confidence, in addition to standing out from the other players, so that coordination becomes the main source within this sport.

But to carry out the realization of adapted futsal for the blind, different modifications in the structures must be taken into account, an example of this are the lateral fences in order to play uninterruptedly, without so many throw-ins, this as part of a safety barrier to the players and for the sense of orientation.

As a safety and orientation barrier, different and important changes were used, such as the soccer ball that has a sound inside it produced by four capsules that produce internal noise when the ball moves; this sound source is of vital importance for the orientation of the players.

In the context of Ecuador, adapted futsal for blind and visually impaired people is little practiced due to the lack of infrastructure and adequate elements for its execution. Despite this, this modality has maintained some popularity at the national level, mainly using cement playing fields, although it is also known as mini-football or indoor.

In the educational environment, students with visual disability may face a number of challenges that hinder their access to equitable education. Lack of resources and specialized support, architectural and accessibility barriers, stigmatization, low social inclusion, poor teacher training, and lack of curricular adaptations are common problems that affect their participation and academic development.

The above focuses the need to develop a methodology for the teaching and learning of adapted futsal for students with visual disability in the Educational Unit La Floresta, which facilitates overcoming existing barriers and promotes their inclusion, physical and mental well-being, as well as their sports performance. This research seeks to contribute to the



development of effective learning strategies that allow students with visual disability to acquire the knowledge and skills necessary to actively participate in adapted futsal, fostering their autonomy, confidence and quality of life.

The lack of teaching-learning programs and new alternatives for adapted futsal has limited the lifestyle and quality of life of the students of the educational unit La Floresta, which evidences as a scientific problem how to favor the teaching-learning of adapted futsal in students with visual disability?

Hence, the objective is to socialize a methodological proposal for the practice of adapted futsal that from an inclusive education guarantees the quality of life of students with visual disability, improving their performance and promoting their physical and mental well-being.

MATERIALS AND METHODS

The participants corresponded to students with visual disability from 14 to 16 years of age, from the Specialized Educational Unit "La Floresta" in Guayaquil, in a total of eight students, who showed availability and accessibility to be part of the research. The specific needs were taken into account to guarantee inclusive participation, and the necessary support was provided to get involved in the study.

In order to know the sports performance of the adapted indoor soccer students with visual disability from 14 to 16 years of age from the specialized Educational Unit "La Floresta" in Guayaquil, it was necessary to characterize this population, as shown in Table 1.



Table 1. Characterization of the study population

Students	Age	Frequency with that train in the week	Position that play	Diagnosis ophthalmological	Experience sporty
1	14	3	Pivot	Low vision	3 years
2	14	3	Pivot	Low vision	3 years
3	14	3	Central defense	Low vision	3 years
4	15	3	Central defense	Low vision	3 years
5	15	3	Mid center	Low vision	4 years
6	16	3	Mid center	Blindness	4 years
7	16	3	Forward	Blindness	4 years
8	16	3	Forward	Blindness	4 years

Methodology:

The documentary review of the PE curriculum, as well as the grade level program and class system provided important information for the results of this study. Ten observations were made in PE classes; among the indicators to be evaluated, the following were taken into account:

- Corrective actions
- Compensatory actions
- Playful actions
- Differentiated corrective actions

These elements were developed during the class session. Hence, it was important, through physical tests, to measure visually impaired schoolchildren, in order to know their physical behavior before applying physical loads in the PE classes, a concept for which the students received a value of 30 points, according to the level reached.



Table 2. Physical indicators to be assessed in students

Planks	Sit-ups	Long jump(s/i)	Speed

Classroom observation was used as an instrument. In the same way, the technical behavior of the students was analyzed from their practice of adapted futsal, in the context of PE, where the selected indicators were in the order of:

- Passing with the inside instep of the foot from the place, moves (P/EI).
- Chest reception and driving in a straight line approximately 10 m and pass with the inside of the foot (RC).
- Reception of thigh and pass with outside instep. He moves (RP).
- Reception of a low pass with the inside of the foot and conducts between 4 cones with 1.5 m of separation and shoots at goal with full instep when entering the area (RIPR).

The evaluation was carried out for each of the techniques developed with precision and with a harmonic system of movement. For this purpose, a recording table was created with the five fundamental errors of each of the techniques mentioned, evaluated with the established scale, where five is the maximum score and two, the minimum.

The interview was applied to ten local teachers, with more than five years of experience in the field of adapted PE, with the aim of knowing how they face the class with students with visual disability, their treatment and assessment. The aspects taken into account were in the order of what objective to work with students with visual disability in the classes, if they had some offers of professional improvement that orients a correct methodological treatment in the classes and how to value their possibilities of evolution.



RESULTS

In this study, inclusive school PE is defined as teaching practices that pedagogically thematise knowledge about subjective perceptions of the body and body practices with contextualized sense and meaning (games, dances, sports, gymnastics, among others) that generate learning possibilities appropriate to the particularities of the subjects and their contexts, without distinction of gender, ethnicity, performance of any kind, religion, disability or any form of stigmatization.

Under the rights-based approach, what stands out is a vision of education based on difference as a value, which emphasizes building the capacity of institutions to facilitate learning for all children and young people, accepting their characteristics and signifying them as possibilities for personal and community growth, inclusive school PE should guarantee the right of students to find the best ways to personally solve the motor, cognitive and emotional challenges involved in body practices, to improve their mastery during execution and performance and, in the process, to build their body identity with confidence and security.

As shown in Table 1, the average age is 15 years, they work three times a week and 62.5% of the students have low vision, with a sports experience between three and four years. Their technical and physical performance is reflected in the different reactions that each one expresses in view of the stimuli motor that varies depending on the sporting experience that they individually have and the type of disability visual that present.

Observation makes it easier to know how much the teaching- learning process in the population studied is manifested from the context of the PE class, so that it was prudent to observe 10 classes, emphasis is placed on treatment of the Corrective actions (AC), Compensatory actions (ACP), Playful compensatory actions (LAC) that the teachers provide the student.





Fig.1 Behavior of (AC), (ACP), (ALC) during observation.

As shown in Fig.1, only 40% of the CA planned by the teacher allow students with visual disability to work on the basis of the possibilities they have, as well as to stimulate those analyzers, with the purpose of improving health and enhancing socialization and integration into society.

Only 30% of the PCAs are aimed at eliminating incorrect movements in the execution of the motor activity and, in the same order, 20% of the observed PCAs are related to actions of the adapted futsal game, which is part of the content of the class.

Another element that was taken into account was the physical behavior of these students and their level of development, for which physical efficiency tests of planks, sit-ups, long jump without impulse and speed were applied, as shown in table 2.

Table 3. Physical behavior of the students

Physical development level	Planks	Sit-ups	Long jump(s/i)	Speed
I	0	0	0	0
II	0	0	0	0
III	6	5	3	3
IV	2	3	5	5



The evaluated parameters are taken into account and it is specified that there are no students located in levels I and II, the most affected parameters are those of explosive leg strength and speed and in both tests 37.5 % are in the III level of physical development and 62.5 % in the IV level, evaluated as deficient. It was necessary to know the technical behavior of the students and this time, in game conditions, the observation is carried out. The results are shown in Figure 2.

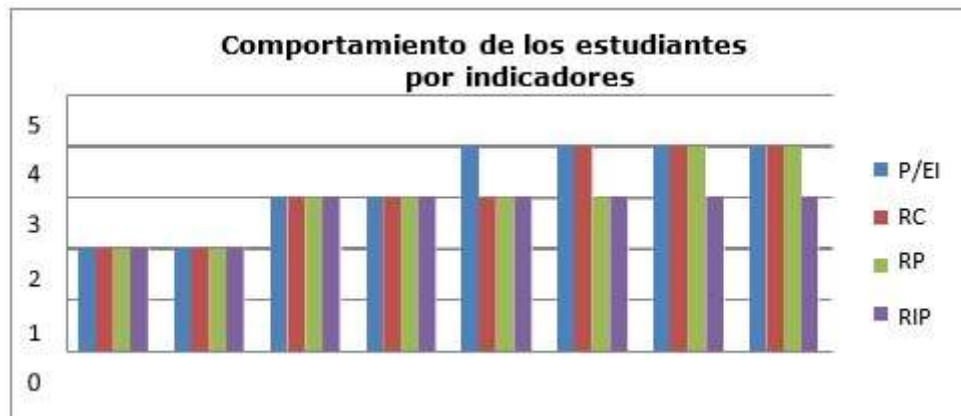


Fig. 2. Behavior of the students by indicators

In the analysis of the information obtained, it is clear that the indicator with the greatest affectation is reception with the inside of the foot of a low pass and conduction between 4 cones with 1.5 m of separation and shooting at goal with total instep when entering the area (RIPR), 25% of the athletes show more than three errors in their execution, 75% reveal two errors in the action and 100% make the error when performing conduction between 4 cones with 1.5 m of separation and shooting at goal with total instep.

In the case of the indicator thigh reception and pass with outside instep. RP moves, 75% show difficulties and they are mainly focused on the execution of the displacement. In this same sense, an evaluation is made by indicators and in general, the most affected is reception with the inside of the foot of a low pass and driving between 4 cones with 1.5 m of separation and shooting at goal with total instep when entering the area (RIPR), obtaining a deficient qualification with a score of 2.75, as shown in table 3.



Table 4. Behavior by technical indicators

Student	P/EI	RC	RP	RIPR	Assesment
1	2	2	2	2	2
2	2	2	2	2	2
3	3	3	3	3	3
4	3	3	3	3	3
5	4	3	3	3	3
6	4	4	3	3	4
7	4	4	4	3	4
8	4	4	4	3	4
Assesment	3,25	3,125	3	2,75	3,125

In an interview with PE teachers from specialized educational units who teach students with visual disability, they reveal the desire to work towards achieving a single objective: that students with this type of disability can improve their health and thus, their preparation for adult and independent life, as well as their socialization; while they present as weaknesses the poor offer of postgraduate training, the discrete knowledge about adapted motor actions to work with students with visual disability and the assessment of the possibilities of evolution in the different motor actions.

The results of the instruments applied in the diagnosis of this research conceive an inventory limitation related to the participation of students with visual disability in the teaching of adapted futsal, from the classes of EF.

Limitations:

- The planning of the PE classes lacks an inclusive approach, as it partially satisfies the linkage of the contents and their projection towards the inclusive pedagogical mode of action.
- The monitoring and evaluation of the PE classes have a weak link with the performance of the visually impaired student for the practice of adapted futsal.



- Insufficient level of preparation of teachers in self-improvement that affects the systematization and understanding of the contents for educational inclusion.
- The students' performance is not satisfactory because it is not planned and is only developed in a fragmented manner, without systematic planning.

The information obtained demands the proposal of a methodology for the teaching-learning of adapted futsal for students with visual disability that includes personalized attention, within the EF curriculum, to carry out its development in the different stages through which it passes as an athlete and human being.

Supported by the criteria of Paez (2018), the structure of the methodology is assumed from a theoretical or cognitive apparatus and a methodological or instrumental one. The first is formed by the legal body that is composed of laws, principles or requirements and by the categorical body that in turn includes categories and concepts. Meanwhile, the instrumental apparatus is made up of the theoretical and empirical methods, techniques, procedures and actions used to achieve the objectives for which the methodology is elaborated, which must be seen as a process and result that requires the combination of methods, procedures, means and techniques, expressed in a concrete and coherent manner in its conformation as a whole as well as the interrelationships that originate between the elements of its structure, as proposed by the aforementioned author.

The proposed methodology is based on the pedagogical point of view, considering PE as a physical education approach based on three fundamental pillars: variability, integrality and diversity, as well as the treatment of the motor behaviors of students with visual disability and the purpose of physical exercise as a means used to contribute to education.

From the psychological point of view, it is manifested through the system of educational influences in the practice of adapted futsal, actions involving students, educational institutions, socio-cultural agents and the family, which intervene in the formation of the personality of schoolchildren and from the philosophical point of view, it reveals the relationship between the student and the teacher as the starting point of social practice, in a historical-concrete process, which is reflected as essence and reality in the improvement of



the human being, for health and for adult and independent life, understood by its systematic and flexible activity, which allows them the continuous improvement of their modes of action that are manifested in the need to form a man in a specific time, in a specific environment and in a certain system of harmonious relations.

It aims to promote the teaching-learning of futsal adapted to students aged 14 to 16 years with visual impairment, considering their characteristics and specific needs, where in an orderly manner to ensure the integrity of sports motor skills and physical abilities, all of them guarantee their quality of life.

It is important that they progressively pass, to know and dominate themselves in their space and time, to know and dominate what surrounds them in their spatial temporal perception, which initiates the symbolic game, which leads to the management of mental images and language in the field of EF as environments of realization. The methods, means and techniques for the execution of sports skills are taken into account, as well as the methodological recommendations for each of them.

Among the implementation requirements are the balls to be used, in this case sound balls made of leather or similar material, slightly smaller than the one used in soccer, if possible, the Handi Life Sport ball is used all over the world and is approved by the International Blind Sports Association (IBSA) as the international competition ball.

In the same order, attention must be paid to the information obtained through language and tactile experimentation, through an analytical perception of the stimuli. They must recognize the parts in order to get an idea of the whole, which is why their learning pace is usually slower. In this case, personalized attention and error correction are essential.

As for the form of evaluation, technical and physical tests will be used with adaptations that show the particularities of each student (Figure 3).





Fig. 3 Graphical representation of the methodology.

DISCUSSION

PE as a process influences the formation and improvement of motor skills, the acquisition of knowledge and the development of convictions, in such a way that it is in a position to fulfill the tasks that society assigns to it, from the labor and social point of view. It can foster fundamental aspects for social development in disabled people, such as social skills, peer relations, tolerance of rules, cooperation, recognition, patience, loyalty, honesty, empathy and motivation, to name a few.

The role of the teacher plays a fundamental role for such a social task, in full agreement with López and García (2018) and Páez et al. (2019) when they address the problem of attention to the student with disabilities in the EF class, from the perspective of the teacher's continuing education.



It is necessary to pay attention to students with visual disability as a topic addressed by this research, the realization of curricular adaptations, where the general education curriculum is taken as a basis, in a way that allows paying attention to all the components of didactics: objectives, contents, methods, procedures, teaching means, forms of organization and evaluation.

It is agreed with Páez et al (2018) when referring that the teacher must create the conditions in his students to stimulate the execution of motor, organizational, communicative skills. In the same way, he considers the feedback of motor actions, in a personalized way, as well as participation, through the phase of self-evaluation and co-evaluation, which places him as the object and subject of his own process.

There is full agreement with Martínez (2009) when he states that the child with visual disability is the one who has greater difficulties than the rest to access information from the surrounding environment and needs an appropriate educational response offered by the entire community, also highlights the role of the teacher, we must focus on the prevention and / or detection of special educational needs that these students present and translate them into forms of intervention, support, modifications and adaptations that favor their full development. Therefore, the authors of this work consider the use of adapted futsal for this task to be appropriate.

Studies such as those of Valdés and Herrera (2014) and Medina (2015) were found that determine physical development in populations with special needs, taking as a common element the analysis of physical capacities and what is related to body dimensions, anthropometric magnitudes and decimal biological age. Both studies, although they give references of diagnosis of the physical component, they are carried out at different times and in different populations and correspond to adapted sports. It was not possible to find references of research related to the study of the physical component diagnosis (morpho-functional) in the school age of 14-16 years, in the context of PE for blind students who practice adapted soccer.



Similarly, Sanchez and Gonzalez (2020) provide a tool for the PE teacher to give individualized attention and achieve the correction and compensation of physical development. In this same order they refer to the selection of the method and tests are performed from those established in this context, to measure the energetic possibilities in field conditions.

The body composition and the plantogram as a complement to the postural test with the corresponding non-significant curricular adaptations. It focuses on the physical component and its alternative does not specify how to develop these elements from the PE class.

CONCLUSIONS

The study made it possible to conclude that it is evident to formalize, from the curricular point of view, the way to adapt that blind students of the specialized educational unit "La Floresta" in Guayaquil can practice adapted futsal in a planned way from the PE classes.

A tool was provided so that the PE teacher can give individualized attention and achieve the correction and compensation of the technical and physical development of these students, based on the environments, methodological recommendations, implementation requirements and ways to evaluate.

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Conflict of interest statement:

The author declares that there are no conflicts of interest.

Author's contribution:

The author is responsible for writing the work and analyzing the documents.



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