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Original article

Theoretical-methodological conception for the development of coordination in students with mild intellectual disabilities

Concepción teórico-metodológica para el desarrollo de la coordinación en educandos con discapacidad intelectual leve

Concepção teórico-metodológica para o desenvolvimento da coordenação em alunos com deficiência intelectual leve

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ABSTRACT

Mild intellectual disability causes slow learning of motor skills, particularly coordination, and this problem is considered to require attention. In Physical Education classes, it was

observed that students with mild intellectual disabilities presented alterations in motor, postural, sensory coordinative capacities and in adaptation behaviors to different contexts such as home, the educational institution and the community; for this reason, the objective was to develop coordination in students from seven to eight years of age, through motor games in Physical Education classes. The study presented was based on methodological complementarity by combining the qualitative and quantitative approaches; theoretical methods such as the analytical-synthetic, the systemic-structural-functional, the historical-logical and the inductive-deductive and empirical methods such as observation, interview, survey and experiment were used. As a result, the theoretical systematization, the diagnosis and the proposal of motor games according to age and mild intellectual disability that manifests itself in the development of motor behavior and in the relations of action of the students were carried out. In general, there was a better coordination and development of skills to perform the different exercises and motor games in Physical Education classes.

Keywords: Coordination, mild intellectual disability, Physical Education, motor games.

RESUMEN

La discapacidad intelectual leve provoca un lento aprendizaje de las habilidades motrices, en particular de la coordinación, y se considera que esta problemática precisa de atención. En las clases de Educación Física se observó que los educandos con discapacidad intelectual leve presentaron alteraciones en las capacidades coordinativas motoras, posturales, sensoriales y en las conductas de adaptación a los diferentes contextos como la casa, la institución educativa y la comunidad; por lo que se planteó como objetivo desarrollar la coordinación en los educandos de siete a ocho años, mediante juegos motrices en las clases de Educación Física. El estudio que se presenta, se sustentó en la complementariedad metodológica al combinarse los enfoques cualitativo y cuantitativo; se emplearon métodos teóricos como el analítico-sintético, el sistémico-estructural-funcional, el histórico-lógico y el inductivo-deductivo y métodos empíricos como la observación, la entrevista, la encuesta y el experimento. Como resultado, se realizó la sistematización teórica, el diagnóstico y la propuesta de juegos motrices acorde con la edad y la discapacidad intelectual leve que se

manifiesta en el desarrollo de la conducta motriz y en las relaciones de actuación de los educandos. De manera general, se constató una mejor coordinación y desarrollo de las habilidades para realizar los diferentes ejercicios y juegos motrices en las clases de Educación Física.

Palabras clave: Coordinación, discapacidad intelectual leve, Educación Física, juegos motrices.

RESUMO

A deficiência intelectual leve causa uma aprendizagem lenta das habilidades motoras, particularmente da coordenação, e considera-se que esse problema precisa de atenção. Nas aulas de Educação Física, observou-se que os alunos com deficiência intelectual leve apresentavam alterações nas habilidades de coordenação motora, postural e sensorial e no comportamento de adaptação a diferentes contextos, como a casa, a instituição de ensino e a comunidade; portanto, o objetivo foi desenvolver a coordenação em alunos de sete a oito anos de idade, por meio de jogos motores nas aulas de Educação Física. O estudo aqui apresentado baseou-se na complementaridade metodológica, combinando abordagens qualitativas e quantitativas; foram utilizados métodos teóricos como o analítico-sintético, o sistêmico-estrutural-funcional, o histórico-lógico e o indutivo-dedutivo, bem como métodos empíricos como observação, entrevista, pesquisa e experimento. Como resultado, foram realizados a sistematização teórica, o diagnóstico e a proposta de jogos motores de acordo com a idade e a deficiência intelectual leve que se manifesta no desenvolvimento do comportamento motor e nas relações de desempenho dos alunos. Em geral, observou-se uma melhor coordenação e desenvolvimento de habilidades para realizar os diferentes exercícios e jogos motores nas aulas de Educação Física.

Palavras-chave: Coordenação, deficiência intelectual leve, Educação Física, jogos motores.

INTRODUCTION

Attention to students with mild intellectual disabilities had a slow and gradual development, influenced by the special attention of teachers, philosophers and doctors with progressive ideas who proposed correct solutions and marked the way forward for further research.

It can be affirmed that, at present, the work with these students has a convergence in the different theoretical approaches, given in intellectual disability. The social model of disability and the weight given to environments in its configuration have been placed in the current interpretation, in the sense of considering it not only in the person, but also in the environment.

The community focus of work with these students with mild intellectual disabilities is fundamental, since they are people who are part of a whole and for whom exceptions should not be made as part of social inclusion. The underlying idea that all people, with or without intellectual disabilities, have the right to be fully admitted into their communities, to participate in them, to benefit from daily life and, in the same way, to contribute to its enrichment.

It is considered that a comprehensive approach to care for students with mild intellectual disabilities is decisive for their stay and learning at school. In this regard, Vigotski (as cited in Figueredo, Campuzano and Rodríguez, 2019) refers:

> Precisely because it is difficult for students with intellectual disabilities to master abstract thinking, the school must develop this ability by all possible means. The task of the school, in short, is not to adapt to the defect, but to overcome it. The student with mild intellectual disability needs more than normal for the school to develop in him the germs of thought, since left to his own devices, he does not manage to dominate them. (p.3)

Correspondingly, in the Constitution of the Republic of Cuba it was raised in the National Assembly of People's Power (2019) in Chapter I, Article 13, subparagraph e "The State has the following essential purposes: to promote sustainable development that ensures the individual and collective prosperity, and obtain higher levels of equity and social justice, as well as preserve and multiply the achievements of the Revolution" (p. 2). In this sense, education has the mission of comprehensive training of people associated with a disability, consistent with the model of human being that society needs.

In the same way, Physical Education, as part of the primary education curriculum, has to contribute to this model that society needs.

> Educational inclusion in physical education as one of the challenges to be in line with the new conceptions of improving the evaluation process. Hence, the compensatory corrective actions for students are characterized by measuring performance, where constructive feedback prevails, so it is also included that it be personalized.
>
> Important aspects when evaluating the level of coordination in students with mild intellectual disabilities, the subject of the research. In Primary Education, the Physical Education subject is of great importance for the development of students due to the contribution it provides to their physical development, their emotional and mental balance and general health. (Vera, Carmenate and Sánchez, 2019, p. 193)

Physical Education has a pedagogical approach that goes beyond the context of its practice, by decisively influencing the physical, mental and social training of the student and having an impact on the direction of the learning processes in an adequate way, so that when becoming an adult can integrate into society.

Ogarrio *et al.* (2021), Gallahue (2005) agree with this position, who propose to organize the teaching structure, based on educational and life skills that make what has been learned meaningful and can be used, through motor responses and forms of coexistence based on respect, gender equality and inclusion.

The development of coordinative capacities from Physical Education at an early age is decisive for future motor behavior, both in daily life and in sports, which becomes more important when students have mild intellectual disabilities, as they require more careful attention as part of inclusion in society without restrictions.

Motor coordination is the simultaneous action between the central nervous system as a regulatory organ and the musculature as an effector organ of the executor of a motor gesture (Hafelinger and Schuva, 2010).

For Figueroa (2016) coordination corresponds to a sequence of activities that is carried out directly or indirectly from an early age, it is aimed at providing the individual with a large number of opportunities to interact effectively and pertinently with the environment, both physical and human and its purpose is to stimulate the general development of the person or that of some specific areas. Verkhoshansky (2018) considers that it is the regulation of external and internal forces, for the optimal use of resources in achieving the sporting objective.

It is observed in the contributions of these authors, the fundamental role that work has from childhood with motor coordination, to lay the foundations of physical and social performance in students with mild intellectual disabilities, always directed from developing and enhancing Physical Education.

All of the above goes through the type of activity that these students develop to achieve the objective that is fundamentally based on motor games and exercises. It is recognized by Pol, Durruthy and Robert (2021) that "(...) through an adequate use of games in the class of this subject, it is possible to raise the quality of the teaching-learning process and basic motor skills are strengthened" (p 144).

Likewise, according to the aforementioned researchers "(...) the game represents a fundamental element due to its integrating nature of knowledge, moral and volitional qualities, in addition to its high motivational incidence within the entire process" (p. 193). Important aspect for the integral development and movement coordination of students with mild intellectual disabilities from the physical education class.

It is significant that authors like Valerezo et al. (2017), Addine (2011), Arrigon y Solanas (2018)Córdoba, Salamanca y Mora (2019), Torres et al. (2021), Muschett Muños y Maestre (2022), Vega y Gonzáles (2022), Núñez (2014), Triana (2019), Zilberstein (2014), Cenizo (2016) made different contributions related to motor, cognitive, physical condition, quality of life, playing games, physical exercises, recreational physical activity and social skills improvement in people with mild intellectual disabilities; however, a limited treatment is evident to design specific actions aimed at their instruction, education and development.

Based on the authors consulted and the previously assessed criteria, the following limitations were determined from theory:

- Lack of a theoretical conception for the development of coordination in students from seven to eight years with mild intellectual disability, from Physical Education.
- Insufficient systematization and theoretical contextualization of the teaching-learning process of Physical Education with an educational, developer and contextualized approach for the development of coordination in students from seven to eight years of age with mild intellectual disabilities.

In a diagnosis carried out at the "Reynaldo Almaguer" special school in the municipality of Holguín, supported by the application of empirical methods, the following limitations were confirmed in practice:

- In Physical Education classes, motor games that are aimed at the development of coordination in students from seven to eight years of age with mild disabilities are not applied.
- Teachers present deficiencies in their preparation to contextualize in the practice, contents related to games for the development of coordination in students from seven to eight years with mild intellectual disability.

The theoretical-methodological deficiencies and the results of the diagnosis in practice demonstrated the existence of limitations in the conception and execution of the teaching-learning process of Physical Education, for the development of motor coordination of

students with mild intellectual disabilities and the need to conceive it, from an educational, comprehensive and contextualized approach that enables the improvement of this capacity.

In this sense, the objective was to develop coordination in students from seven to eight years of age, through motor games in Physical Education classes.

MATERIALS AND METHODS

The research was carried out from January 2022 to June 2022, with a population of 30 students, between seven and eight years of age who are part of the "Reynaldo Almaguer" Special School, in the municipality of Holguín and have intellectual disabilities. The intentional sample was taken of 25 students diagnosed with mild intellectual disability, which represented 82.5 %; 15 of them male and 10 females, also participated five physical education teachers who work in special schools.

Theoretical level methods were applied. The historical-logical one allowed to contextualize and systematize the object in its evolution, with emphasis on the most significant moments of the current state of scientific knowledge around the problem. Analysis-synthesis was used for the systematization, generalization and concretion of the processed information and allowed to delve into the philosophical, sociological, psychological and pedagogical foundations that support the development of coordination in students with mild intellectual disabilities.

Inductive-deductive made it possible to make inferences, restrictions and generalizations in the theory on the development of coordination, as well as the interpretation of the data obtained in the elaboration of the theoretical conception and the proposed methodology, from which new logical conclusions were derived.

On an empirical level, unstructured observation was applied during the diagnosis stage, to evaluate the development of coordination in students with mild intellectual disabilities, through Physical Education classes and the control in the application of the games. The analysis of documents, by delving into scientific journals, doctoral and master's theses,

manuals, study plans and programs that were necessary to establish the status and trends of the object of study.

The measurement allowed to quantify the results obtained in the 3JS test, to determine the development of coordination in these students. For the application of the test, it was taken into account that it was worked with students with mild intellectual disabilities, so their processes do not work at the same level as those who do not have any disabilities and it was explained how it is done, based on establishing the psychological characteristics, morphological and physical.

It was explained three times how to carry out the test and it was executed first, as a guide where the results were not taken into account. It was in this space that the principles of didactics for Physical Education were revealed, such as affordability and individualization, the progressive increase in loads, attention to individual differences, the approach of the object from the general to the particular, in the unit of the instructional, the educational and the developer and the affective and the cognitive, the systematicity and the principle of the inclusive approach of special education.

For the primary data processing and the information analysis MacNemar test was used, which considers the relative magnitude and direction of the differences and visualizes the changes in the percentages, in case they occur. Once the data was tabulated, the results of both initial (DI) and final (DF) diagnoses were compared and the statistical hypotheses formulated as follows:

- Ho: the development of motor coordination in schoolchildren from seven to eight years does not depend on the application of the methodology based on motor games, (DF≤DI).
- Hi: the development of motor coordination in schoolchildren from seven to eight years depends on the application of the methodology based on motor games, (MF≥ MI).

The theoretical and practical limitations demonstrated the need for the application of a methodology based on a theoretical conception for the development of coordination in students from seven to eight years of age with mild intellectual disabilities, since they presented deficiencies in the coordination of movements when performing games in Physical Education classes. The pedagogical conception for the development of coordination in these students with mild intellectual disabilities constitutes the fundamental contribution of this study. The pedagogical conception is defined as "(...) the set of objectives, essential concepts or starting categories, principles that support it, as well as a characterization of the research object, emphasizing and explaining those transcendental aspects that undergo changes, by assuming a point of view" definition that is assumed.

In the same way, they constitute references from physical culture, to understand the essence and possibilities of the process that is studied, from theoretically arguing ideas, categories, interrelationships, definitions and ways of implementing them in practice.

The premises constitute the second component of the subsystem and are defined as the general theoretical basis of the pedagogical conception for the development of motor coordination of students with mild intellectual disabilities from the teaching-learning process of Physical Education and have the function of guiding the development of this process, "are the result of logical assessments that take into account the dialectical interaction between theory and practice, as well as the study carried out and its role is guiding". Consequently, the following premises were determined:

1. The educational and humanistic nature of Physical Education classes, based on the definition, integration and contextualization of the contents for the development of motor coordination in seven-and eight-year-old students with mild intellectual disabilities.

2. The systemic, integrated and individualized approach to care coordination in seven-and eight-year-old schoolchildren with mild intellectual disability.

3. Motor games as support in the development of intrinsic motivation in the Physical Education teaching process for the development of coordination in seven and eight-year-old schoolchildren with mild intellectual disabilities.

4. The theoretical-methodological improvement of Physical Education teachers for the work in the development of coordination in schoolchildren with mild intellectual disabilities.

The second component is made up of the general and specific principles that are defined by the guiding nature of the teaching-learning process of Physical Education, its function is regulatory by guiding the entire process for the development of coordination from theory, while they support the pedagogical conception. The content particularities of the principles are synthesized when it refers: The principle appears as the beginning, foundation, axiom, postulate, premise of knowledge, guiding idea, central concept, link between concepts, starting point of the explanation, initial position of the theory, basic theoretical knowledge, expression of the necessity or law of phenomena, methodological invariant, conviction, point of view on things.

The principles of Cuban pedagogy are assumed for the direction of the pedagogical process, systematized and contextualized in the pedagogical conception for the development of coordination of students with mild intellectual disabilities from the teaching-learning process of Physical Education.

Principle of the unity of the scientific and ideological character of the formation process

The development of coordination in students with mild intellectual disabilities from Physical Education, corresponds to the Marxist-Leninist conception and the dialectical materialist method. The facts and phenomena of nature, society and thought are analyzed, framed in their historical moment, so that teaching-learning is valued as a consequence of the progressive development of personality education.

Principle of the unity of the instructive, the educational and the developer

In the practice of games and activities in Physical Education, students perform motor tasks in a systematic way that increase the degree of complexity for their instruction and education; by integrating previous contents, this process has a developer character, from the point of view of their physical, social and mental abilities, in a significant way.

Principle of linking education with life, the social environment and work activity

During the Physical Education class process, the students perform games and physical activities with different themes and roles, played systematically and gradually, which influence not only their physical condition, but also their social integration by respecting the rules of the game, their peers, on the contrary, by sharing experiences and work as a team to achieve the objectives of the activity; all of this prepares them for a harmonious integration into social and work life when they are adults.

Principle of the collective and individual nature of education and respect for the personality of the student

The teaching-learning process of Physical Education needs to take into account the particularities of students with mild intellectual disabilities who are educated physically, socially and mentally so that during the practice of motor games, the educational work is complemented, they are protagonists of the process and comply with the objectives that are planned, based on the analysis of the diagnosis; this enables individual and group work supported by motor games as a means for the development of coordination, through the accompaniment of other classmates and the teacher, with help to carry out the games and real possibilities of the educated, for the achievement of the proposed objectives.

Specific principles of the teaching-learning process of Physical Education

The principles of Physical Education concerning the consciousness-activity, sensoperceptual, affordability and individualization, systematicity and the dynamic and gradual increase in demands are assumed.

These principles are specific for the teaching-learning of motor skills and the training of physical capacities. In both cases, general and specific, the fundamental methodological task is the adequate choice of means for the appropriation, improvement and consolidation of the coordination of consciousness-sensoperceptual activity, affordability and individualization, systematicity and dynamic increase. and gradual demands

The third component is the categorical body that is defined as the theoretical support that operationalizes the development of coordination and rhythm and is defined by the guiding nature of the teaching-learning process of Physical Education.

The concepts and categories developed in this component specify the essence of the development of coordination from the Physical Education class, hence, the relationships of interdependence, unconditionality and communication that underlies the different components of the subsystem and facilitates their educational nature.

The dialectic of the relationships of the conceptual theoretical subsystem reveals the need to develop the theoretical methodological support of the teaching-learning process of Physical Education, for the adequate development of the coordination of these students. The interrelationships of interdependence, unconditionality and communication characteristic of the two subsystems facilitate the determination of the components.

The second subsystem of the model is the methodological one, it is defined as the educational instructional process, based on the developer, social and corporal components that, for its dynamics, are integrated on the basis of the level of interdependence relationships that coexist between the components non-personal aspects of the teaching-learning process of Physical Education. This subsystem maintains relationships of dependency and conditioning with the conceptual theoretical subsystem, its developer-controlling function.

The first component of the methodological subsystem is the developer and is defined as the contextual process of teaching-learning of Physical Education for the improvement of coordination, supported by the dynamics that are established as a result of the reciprocal interdependence of the objectives, contents and methods, from which relationship the

developing instructional function is derived. The key elements for a developmental learning are synthesized when they express: under this position, a developmental teaching is one that, from the diagnosis, creates the conditions for the teaching intervention, considers the interests, motivations, needs, particularities, potentialities of the students, uses active methods that promote the use of learning strategies, organizes, guides, controls the types of activity through significant tasks that respond to different levels of complexity.

These elements are taken into account for the development of coordination, dynamized by the use of objectives, contents and developer methods, which promote the leadership of the seven to eight-year-old student with mild intellectual disability, in their own learning, always with the help of from other learners. The second component of the subsystem is the social one and it is defined as the integration from the Physical Education class of the aptitude and attitude contents that promote the development of coordination. This dialectical interrelation of dependency and conditioning emerges the developing educational function.

Functional relationships are based on the need to integrate content, which strengthens the process, mainstreams it, organizes it, and encourages appropriation by students for their effective insertion into society.

The third component is the body, it is understood as practical contextual appropriation and its function is cognitive-regulatory; the Physical Education class is the main way for the development of coordination in students with mild intellectual disabilities. In this sense, the indissoluble relationship between theory and practice is present in the triad: objective-method-content, with the accompaniment of the teacher. This is based on the invariable unity between the educational and instructional components.

Of the subsystems, components and elements that make up the pedagogical conception, a methodology is designed that reveals the practical value in its stages, phases and actions, in which the systemic, integrating and contextualized character is declared, reasoned as logic for its operation and organization, based on the operationalization of the systemic-structural-functional method.

The methodology allows the instrumentation and evaluation of the pedagogical conception in practice, by facilitating the direction and organization of the actions and activities to be carried out in Physical Education classes for the development of coordination in students from seven to eight years of age with mild intellectual disabilities.

The general objective of the methodology is to contribute to the development of coordination in students from seven to eight years of age, with mild intellectual disabilities, through the application of motor games and physical exercises from the Physical Education class.

First phase: diagnosis, in which the current state of seven to eight-year-old schoolchildren with mild intellectual disability is characterized, in terms of coordination development; its objective is to create the conditions for the organization of the process and it is made up of two stages: characterization and preparation.

For the diagnosis, the 3JS Motor Coordination Test was assumed. Due to its importance and design, it is considered the most effective for working with these students, due to their adaptability to specific characteristics. It consists of seven tests that are mentioned below:

1. Jump with feet together over obstacles on the ground.
2. Rotation in the longitudinal axis.
3. Precision throwing (C. visual-motor).
4. Precision hitting (C. visual-motor).
5. Slalom race (C. general dynamics).
6. Boat (C. visual-motor).
7. Driving (Visuo-motor C.).

The seven tests are carried out continuously without stopping, with which it is intended that the students demonstrate the development achieved in different manifestations of motor coordination such as locomotor coordination and object control coordination (with the foot or the hand). hand).

On the other hand, "The execution in each of the seven tests is valued between 1 and 4 points, with 1 being the most immature development and 4 the optimal qualification of the execution", based on the analysis of the research results we will call the intermediate qualifications of two and three points, (little mature and mature), with which a better description can be made.

Second stage. Design, from the organizational point of view, allows planning the scientific logic of the rest of the phases and stages of the methodology; it is a fundamental phase, as it contains the stages of raising awareness and drawing up the activity plan. Its objective is to plan the actions and activities to be developed for coordination.

Third phase. Instrumentation. It is here that once organized and planned, ideas are turned into results, through the application of motor games and elaborate activities. Its objective is to apply what was planned to achieve the development of coordination in students from seven to eight years of age with mild intellectual disabilities. It is made up of two stages: appropriation and consolidation of the system of actions and activities.

As a consequence of the previous phases, the theoretical-methodological systematization carried out and the support provided by Watson 2007 regarding the structure of motor games, the following methodology is used to carry out the games: name of the game, materials, objective, organization, development, rules and variant. Therefore, the following motor games are proposed for the development of coordination: game 1. Hit and score, game 2. Hit the objects, game 3. Throw the ball, game 4. The fruit, game 5. A Discover the object, game 6. Throw to the basket, game 7. Attack, the opponent, and game 8. Throwing rings.

Fourth phase. Control, once the achievement of the preceding phases is achieved, its evaluation is required as a form of feedback for the entire process. It has the objective of measuring the results, if it is necessary to introduce changes and make new decisions to improve it.

RESULTS

Results of the comparison of the initial and final diagnosis and partial application of coordination

When evaluating the initial diagnosis of the 25 schoolchildren, the percentages distributed between 25.71%, one point; 53.71, two points; 9.71 %, three points and 10.85 %, four points. It was concluded, after the sum of the percentages, that 79.42 % of the total schoolchildren were evaluated with little mature and immature categories and only 20.56%, with optimal maturity, (Table 1).

Table 1. - Measurement of the tests in the initial diagnosis

initial tabulation Mac Nemar				
	Initial			
	1 point	2 points	3 points	4 points
Results of the 7 tests	Four. Five	94	17	19
total percentage	25.71%	53.71%	9.71%	10.85%

Table 2. -*Results of the comparison of the initial and final diagnosis*

initial*final crosstabulation Mac Nemar					
	Final				Total
#	**Tests**	2 points	3 points	4 points	
1	Jump with feet together over obstacles on the ground	3	10	12	25
2	Rotation in the longitudinal axis	2	8	15	25
3	Precision throwing (C. visual-motor)	1	11	13	25
4	Precision hitting (C. visual-motor)	-	13	13	25
5	Slalom race (C. general dynamics)	1	12	12	25
6	boat (Visuo-motor C.)	1	13	11	25
7	Driving (Visuomotor C.)	1	11	13	25
Total	Test Count	9	77	89	175
	% of the total	5.14%	44%	50.85%	100%

The percentage variations essentially pointed to the variation of the classifier where DF≥DI, with 100 % of the cases analyzed. In general, the recount of the tests in the final diagnosis showed an improvement in 94.86% of the maturity and optimal maturity categories, according to the second measurement. This expressed a favorable position higher than the initial diagnosis, from a percentage significance, so the null hypothesis (Ho) is rejected.

DISCUSSION

The results found in the study show the importance of games and physical activity in motor development and, specifically, in the coordination of seven to eight-year-old students with mild intellectual disabilities. Effects that were also found in other authors such as Ogarrio, *et al.* (2021) who found a significant increase of 5.35 points according to the applied scale, as evidence of better dynamic coordination, measured for this ability related to jumps and turns, among others.

On the other hand, Torres *et al.* (2021) demonstrated the feasibility for motor development with games and physical activities in students with mild intellectual disabilities and made a proposal for motor activities, which, once applied, revealed an improvement in fine and gross motor coordination, through starting from the evaluation of motor achievements; this enabled a better motor performance in the actions of children in daily life.

Valarezos *et al.* (2017) studied a sample related to this type of disability, but between the ages of 14 and 25, it was possible to verify the existence of a development in their motor skills as a result of the application of the MABC test, given that the final results after of applying the plan of recreational physical activities were better in relation to the initial tests, which contributed to the formation of a comprehensive being.

In the same order of ideas, authors such as Córdoba, Salamanca and Mora (2019) found as a result of their study that the development of physical well-being in children with mild intellectual disabilities contributes to improving their quality of life.

In another study with children with mild intellectual disabilities, but related to the treatment of visual-acoustic-motor memory, from adapted games in the Physical Education class, Muschett, Muñoz and Maestre (2020) found that children, in the post-test measurement, showed significantly higher results than those obtained in the pre-test, indicating the importance of playing games and physical activities to improve physical condition in these children.

Likewise, Vega and González (2022) in research that relates physical activity and academic performance in people with mild intellectual disabilities valued, after carrying out a systematization of different articles, that the relationship established between the practices is significant and positive of physical activity and physical performance.

It is also worth noting the study by Arrigoni and Solans (2018) who apply a social skills promotion program based on cooperative games for secondary school students with mild intellectual disabilities and exposed as a result that the work is revealing, from physical activity, for the development of these skills.

The findings make explicit the importance of working with students with mild intellectual disabilities, through the use of games and physical activities, since they tend to the integral development of people with this disability, these results are an added value to the successes found in the research that is exposed in this article.

Features that distinguished the proposed pedagogical conception

Objective: in its elaboration, the results of the diagnosis carried out were taken into account, which led to the need to apply a methodology of motor games, to achieve the development of coordination in students with mild intellectual disabilities in Physical Education classes.

Instructive: the instrumentation of the fundamentals of the categories contemplated in the subsystems that make it up allowed the teacher to acquire knowledge to achieve a high level of development of the coordinative capacities in these students, depending on their deficiencies and with a comprehensive and individualized approach.

Comprehensive: the qualities, values and norms of social behavior are considered, as well as the potential offered by physical-educational activities for comprehensive development, in terms of coordination in the training of the student as one more member of society.

Systemic: it was carried out in the form of a system and the potentialities and deficiencies of these students were taken into account; in addition, the environment was interacted with when conceiving the structural and functional relationships of the educational teaching process Calderón (2008).

Structure of the pedagogical conception

A fundamental element of the pedagogical conception is the objective, which consists of achieving a high development of the coordination of these students with mild disabilities, supported by motor games and exercises that are specified from the Physical Education class.

The conceptual theoretical subsystem, it is defined as the guiding characterization of the environment where the motor coordination of students from seven to eight years of age with mild intellectual disabilities is developed, it constitutes the starting point of the system, and in turn, it is the entrance to the proposed pedagogical conception; its three components have in common the contribution to the educational process.

This subsystem fulfills the function of guiding and projecting the various components, according to their level of interaction, interdependence and hierarchy in the subsystem, which favors the integration of the contextual educational influences of the teaching-learning process of Physical Education for the development of motor coordination of students with mild intellectual disabilities.

The first component of the subsystem is formed by the theoretical foundations that are defined as multi-methodological support of the pedagogical conception, for the development of motor coordination of students with mild intellectual disabilities.

It has the function of theoretical-methodological support of the teaching-learning process of Physical Education, considering the essential elements offered by the sciences and the different approaches dealt with in each of the following foundations:

From the philosophical point of view, the materialist dialectic is assumed, because through its principles and laws the interactions of the teaching-learning process of Physical Education in a specific historical moment are discovered, by objectively interpreting the learning-learning relationship development and conceive of man as a substantial part of the environment with a humanistic vision.

The Marxist-Leninist theory of knowledge makes it easier to develop the constructs of practical teaching, concepts and theories, the exercise of critical, creative, active and responsible thinking. In addition, it serves as the basis for the pedagogical conception, because it provides the internal logic of the relationships of scientific knowledge, the theoretical-practical contextualization for the development of coordination in students from seven to eight years of age with mild intellectual disabilities in Physical Education classes.

From the sociological point of view, the currents of professional improvement and their implication in the contextual relationship of motor development are taken into account, based on the relational paradigm of Engels and Marx (1973). From the perspective of development and its impact on social behavior, the Physical Education class is conceived as a social phenomenon, the consideration in the daily practice of the teaching-learning process is revealed, in the multiple interactions that occur in it and the expression of behaviors and attitudes with an open and interactive nature of relationships, as well as attention to the diversity and individuality of the student with mild intellectual disability.

In the psychological approach, the historical cultural approach of Vigotsky (1987) and his followers are taken into account, who attach great importance to developer learning, as a way of using the social environment in the transmission of culture that becomes knowledge when it is involved to the learner. At the same time, the influence of the environment on motor development is valued as a decisive factor in the integral formation of personality and specific human traits, considering that the innate potential of students are developed in correspondence with the environment, the historical period and the culture of the place

where they live, so it is necessary to take into account the incidence of motivation and the use of communication.

From the pedagogical point of view, the approaches of Tejeda (2020) are assumed as a reference when he highlights "(...) the educational teaching process is something more than the integration of teaching and learning, it is the systemic and holistic integration of the components: problem, object, objective, content, methods, means, form and result" (p. 34). For the development of coordination in schoolchildren from seven to eight years old with mild intellectual disability in Physical Education classes, it is necessary to take into account the relationship between the different components of the process and their contextualization, based on the particularities of the students.

CONCLUSIONS

The designed methodology, based on a pedagogical conception with an educational, comprehensive and contextualized approach to the teaching-learning process of Physical Education in students with mild disabilities, is based on relationships of interdependence, communication and subordination between its subsystems, components and elements that made possible its application in the social practice of this discipline and the achievement of the proposed objectives.

With the application of the methodology expressed in motor games and exercises, the feasibility of the same was corroborated by achieving the development of the coordination of schoolchildren from seven to eight years with mild disabilities, in the context of Physical Education classes.

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