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Inclusion in Physical Education, its perspective from the formation of the Physical Culture professional

Inclusión en la Educación Física, su perspectiva desde la formación del profesional de Cultura Física

A inclusão na Educação Física, a sua perspectiva a partir da formação do profissional de Cultura Física

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ABSTRACT
This article refers to the establishment of didactic-methodological tools for the incorporation of contents related to the inclusion of students with disabilities in the Physical Education class, which allow its transversality in the curriculum of the Bachelor's Degree in Physical Culture. Based on a diagnosis carried out, the lack of presence of contents related to the topic in the subjects of the degree course was confirmed, being necessary its treatment in order to comply with the training objectives, the specific professional skills of the graduate and the international educational goals. Theoretical and empirical methods were used, such as the work with documents and the interview, which made it possible to analyze different documents such as: Syllabus E, programs of disciplines and subjects, as well as the bibliography related to Inclusive Physical Education. A methodological algorithm was organized starting from the general objectives of the program to the bibliography of the discipline. This is exemplified in the discipline Theory and Practice of Physical Education and makes it possible for each subject of the course to contribute to the student's perception of the pedagogical action carried out, taking into consideration educational inclusion. The research is carried out in a context in which it must train its students with an integral physical-educational approach, where the attention to disability in the Physical Education class is considered, from the formation of the professional.

Keywords: Physical recreation; Educational content; Physical-recreational activities; Community context.

RESUMEN
El presente artículo hace referencia al establecimiento de herramientas didácticas-metodológicas para la incorporación de contenidos relacionados con la inclusión de educandos con discapacidad en la clase de Educación Física, que permitan su transversalidad en el currículo de la carrera Licenciatura en Cultura Física. A partir de un diagnóstico realizado, se constata la falta de presencia en las asignaturas de la carrera de contenidos relacionados con el tema, siendo necesario su tratamiento para dar cumplimiento a los objetivos formativos, las habilidades profesionales específicas del licenciado y las metas educativas internacionales. Se emplearon los métodos del nivel teórico y empíricos como el trabajo con documentos y la entrevista, que posibilitaron que a partir del análisis de diferentes documentos como: Plan de estudio E, programas de disciplinas y asignaturas, así como la bibliografía relacionada con la Educación Física Inclusiva. Se organizó un algoritmo metodológico que partió desde los objetivos generales del programa hasta la bibliografía de la disciplina. Este se ejemplifica en la disciplina Teoría y práctica de la Educación Física y posibilita que cada asignatura de la carrera contribuya a que el estudiante perciba qué actuación pedagógica se realiza, tomando en consideración la inclusión educativa. La investigación se realiza en un contexto en el que debe formar a sus educandos con un enfoque integral físico-educativo, donde se pondera la atención a la discapacidad en la clase de Educación Física, desde la formación del profesional.

Palabras clave: Recreación física; Contenido educativo; Actividades físico-recreativas; Contexto comunitario.

RESUMO
Este artigo refere-se ao estabelecimento de ferramentas didático-metodológicas para a incorporação de conteúdos relacionados com a inclusão de estudantes com incapacidades na aula de Educação Física, que permitem a sua transversalidade no
currículo do Bacharelato em Cultura Física. A partir de um diagnóstico efetuado, confirmou-se a falta de presença de conteúdos relacionados com este tema, nas disciplinas no curso de licenciatura, sendo necessário o seu tratamento para cumprir os objetivos formativos, as competências profissionais específicas do licenciado e os objectivos educativos internacionais. Os métodos do nível teórico e empírico foram utilizados como o trabalho com documentos e a entrevista, o que tornou possível que a partir da análise de diferentes documentos tais como: Plano de Estudo E, programas de disciplinas e assuntos, bem como a bibliografia relacionada com a Educação Física Inclusiva. Foi organizado um algoritmo metodológico a partir dos objectivos gerais do programa até à bibliografia da disciplina. Isto é exemplificado na disciplina Teoria e Prática da Educação Física e torna possível que cada disciplina do curso contribua para a percepção do aluno sobre o que a ação pedagógica é realizada, tendo em consideração a inclusão educacional. A investigação é realizada num contexto em que deve formar os seus alunos com uma abordagem físico-educativa integral, onde a atenção à deficiência na classe de Educação Física é ponderada, a partir da formação do profissional.

Palavras-chave: Educação Física Inclusiva; Formação Profissional.

INTRODUCTION

The inclusion of learners with disabilities in general education schools was born "in response to the urgent need for the educational, social and labor insertion of those who have historically been victims of social inequities, injustices, violence and neglect" (Alvarado and Álvarez, 2014, p.1), in response to the Salamanca Statement and its framework for action adopted at the World Conference on "Special Needs Education" in 1994, which were enriched at the World Education Forum, Dakar 2000.

In this sense, inclusive educational systems are promoted at the international level; by establishing legislation and regulations that reflect equal rights, therefore, equal opportunities for education based on the heterogeneity of the school. These have been aspects that have been part of Cuban education where "inclusion and equity (...) stand as the cornerstone of a transformative education purpose" (Sánchez and Puentes, 2019, p.205).

"The Cuban model of care for people with disabilities, makes explicit its intersectoral nature from early childhood", for this, pedagogical strategies are created oriented to what should (Aguiar et al., 2020, p.123) be taught and how it should be taught; which plays an essential role the design of a curriculum that responds to diversity (Alvarado and Álvarez, 2014). This perspective is currently seen as one of the essential aspects in the teaching-learning process; by recognizing the right of all to a quality education taking into account their particularities.

However, despite the normative progress at the international level and the improvement of the Cuban educational system, authors such as Tierra and Castillo (2009), Granda and Mingorance (2010), Azorín et al., (2017), López (2019), Sierra and García (2020) and Aguiar et al., (2020) point out that the formation of professionals and their continuous preparation are part of the limitations that hinder the active participation of learners with disabilities; processes where training needs must be covered to respond in a more adequate way to the diversity and characteristics of the learner.

A major role in such formation is occupied by universities, as they have the responsibility to improve curricula, which guarantee "competent teachers who know how to approach
their teaching practice according to the needs of their students, and who take into account the differences and become participants in their own learning" (Moliner and Sanchez, 2019, p.292); knowledge systems are conceived that punctuate the theoretical-practical elements of inclusive education.

From this perspective, the formation of professionals as future Physical Education teachers with mentioned vision is essential; since their performance guarantees the development of motor skills and capacities. Social, cognitive and emotional skills are also developed here in the learners, which have greater relevance in those who present a disability and are included in general education. It is essential then that the latter appropriates knowledge that allows him/her to know and apply the necessary adaptations both for the student with a disability and for each and every member of the group; this will guarantee full participation in an inclusive Physical Education (Cansino, 2016).

In the same way, research on inclusive Physical Education reaffirms as the main barriers to inclusion the lack of suitable didactic-methodological tools to respond to the diversity of the group. Added to these shortcomings are: the lack of continuous formation, the scarce multidisciplinary work, the negative attitudes towards disability and a curriculum with contents, objectives and evaluation criteria that have to comply with quite closed levels (Gómez et al., 2019; Rubinstein and Franco, 2020). From here comes the need to implement strategies that guarantee the preparation of professionals for an inclusive performance from undergraduate and its continuity in graduate school.

In the effort to materialize inclusive policies in the curriculum of the Bachelor's Degree in Physical Culture, an exploratory study was conducted. Particularly, the study is related to the development of professional skills that provide answers to know how to know, know how to do and know how to be in relation to inclusion in the Physical Education class, as this is fundamental in the multilateral formation of students with disabilities. For this purpose, the Syllabus E and the program of the disciplines were reviewed through the work with documents and it was found as main regularities that:

- The discipline of the course that has had the best orientation towards inclusion is Theory and Practice of Physical Education. On the other hand, there is a lack of reference in the subjects to which are the aspects that distinguish the attention to diversity, seen from the inclusion of people with disabilities in the Physical Education class, since it is only specified in the subject Adapted Physical Education.

- Interdisciplinarity is insufficient in relation to the inclusion of students with disabilities in the Physical Education class. This interrelation makes it possible to take advantage of the contents taught by the subjects and allows the educational inclusion in all the disciplines of the course.

A contradiction is thus manifested between the lack of presence in the subjects of the career of contents related to special educational inclusion in the Physical Education class and the need to incorporate them in their knowledge systems. This complies with the formative objectives, the specific professional skills of the Physical Culture (PC) graduate and the international educational goals.

The contribution of this study lies in the establishment of didactic-methodological tools that enable teachers to incorporate in the knowledge system of their subjects, contents related to the inclusion of students with disabilities in the Physical Education (PE) class.

This contribution contributes to interdisciplinarity and to the presence of attention to diversity in a transversal way in the curriculum of the course.

Thus, the general objective is to establish didactic-methodological tools that contribute to the incorporation of contents related to the inclusion of students with disabilities in the Physical Education class; these tools allow the transversality of this inclusion in the curriculum of the Bachelor's Degree in Physical Culture.

**MATERIALS AND METHODS**

The results shown in this article were obtained through the use of theoretical and empirical methods. Among the theoretical methods, the historical-logical method was used to systematize the pedagogical trends about the process of Inclusive Physical Education (IPE) specifically aimed at schoolchildren with disabilities, at international and national level. The analytical-synthetic and inductive-deductive approaches were used in the decomposition of the elements that include the teaching-learning process in the formation of professional skills for the inclusion of people with disabilities in the Physical Education class. Parallel to this study, didactic-methodological tools were established for the incorporation of the contents related to this topic in the following subjects.

At the empirical level, an interview was conducted with professors of the Faculty of Physical Culture "Nancy Uranga Romagoza" of the University of Pinar del Río "Hermanos Saíz Montes de Oca"; in order to verify the level of knowledge and materialization of educational inclusion in the subjects of the course. The review of documents was also used from the selection, treatment and interpretation of documents such as: Syllabus E, programs of disciplines and subjects, as well as the bibliography related to IPE. The purpose of this search was to verify the treatment given from the methodological point of view to the educational inclusion in Physical Education and Sports of people with disabilities, specifically its orientation from the Professional's Model. Likewise, the general objectives, the knowledge system, the methodological indications and the curricular strategies of the programs of disciplines and subjects were consulted.

To achieve this goal, a detailed reading of each document was carried out, the way in which inclusiveness is intended from the approach given for the attention to diversity and the inclusion of students with disabilities was verified; finally, the aspects that by their conception allow the adjustment that provides the inclusive perception in the curriculum of the career, which allows its transversality, were selected.

Descriptive statistics was used in the primary elaboration of the data, which allowed processing the data obtained, using as a statistical technique the calculation of relative quantities (\%).

We worked with a population of 102 staff teachers and used a probabilistic sampling design, a simple random sampling type, without replacement. The sample is classified as dependent, since it was represented by a single group. The representativeness in the selection was given in the proportion one out of five, equivalent to 20% of the population (20 professors). Of these, three are doctors of science, 17 have a master's degree, three are tenured professors, 13 are assistant professors and four are assistant professors; 11 are subject heads and two are discipline heads.
RESULTS

In the interview, it was possible to determine the following regularities:

- The 35% of the interviewees refer that they address the contents of educational inclusion from the preparation of the subject, considering that it is an important aspect necessary for the attention to diversity and to respond to the integral physical-educational approach of Physical Education.

- Its treatment in the subjects should be based on the educational work carried out by the teacher in relation to the attention to individualities, considering that everyone has the right to participate in physical activities and sports, whether or not they have a disability.

- Forty-five percent limit the treatment of the subject to one subject.

- One hundred percent of the interviewed persons refer that from the career it is a subject that needs more information, including a methodological treatment, which should be made aware and planned, since there are insufficient activities or actions that guarantee an inclusive conception of the students that will be reverted in their future performance.

The detailed analysis of the Syllabus E directed to the methodological indications that project the attention to diversity, specifically to disability and its vision in the programs of the disciplines, was the first step that directed the inquiry. We begin by pointing out that, in relation to the model of the professional in which it is manifested, a professional with a broad profile is trained, which ensures greater employability and labor mobility, the development of physical, sports and recreational activities with people with disabilities is not explicitly reflected in the work object of the Bachelor in Physical Culture, even though it is stated that these should respond to the needs, motives and interests of the community practice as part of the sport for all.

Of the ten specific professional skills, two of them refer to students with disabilities, but from a therapeutic vision, sport for all and adapted sport, without specifying their attention in the Physical Education class. Similarly, in the five functions of the graduate, only one of them refers to diversity, specifically in the evaluation of the processes of PC; although within the general objectives it is stated that the student upon completion of his studies should direct the different pedagogical processes from a reflective, transformative thinking and attention to diversity.

The basic curriculum of the career has 11 disciplines; classified in general (Marxism-Leninism, History of Cuba, Preparation for Defense), basic-specific (Biological Foundations of Physical Activity, Psychopedagogy of Physical Activity, Methods of Analysis and Research in Physical Culture) and of the exercise of the profession (Theory and Practice of Physical Education, Theory and Practice of Sport, Prophylactic and Therapeutic Physical Culture, Physical Recreation and Research Labor Formation); supported by 48 subjects.

The 100% of the disciplines and in correspondence with the model of the professional support their objectives in the historical-cultural approach of Cuban education and ponder the ethical-humanist position that the Physical Education professional should have, in addition to values, among others, such as internationalism, solidarity,
patriotism, honesty, justice, responsibility, industriousness and tenacity; it is thought that the positive attitude towards disability should be explicitly stated.

The 27.3% of the disciplines make allusion in one of their objectives to the attention to diversity or population diversity and 18.2% do so in the methodological indications; this being a weakness that hinders the achievement of the transversality of educational inclusion, since it is concretized in a specific and detailed way in only one discipline, in this case Theory and practice of Physical Education, particularly in the subject Adapted Physical Education (EFA in Spanish).

It is inferred that the main integrating discipline, Formation of labor research in Physical Culture, being linked to the aforementioned discipline, in addition to Theory and practice of sport, physical recreation and prophylactic and therapeutic Physical Culture; has presence of the inclusive subject, if it is taken into consideration that in its objectives it is pointed out that the student should be able to direct the pedagogical processes in different population sectors.

Regarding interdisciplinary relations, it is reflected in detail which are the subjects that guarantee the linking of contents that allow the understanding and acquisition of knowledge, with a developmental character that stimulates reflective, critical and self-critical thinking; Morphology, Physiology, Biomechanics, Theory and Methodology of Physical Education stand out; there is also a generality regarding educational diversity, without explicitly alluding to inclusion.

Concentrating the topic of educational inclusion in a single subject (EFA) is a pedagogical challenge, particularly in the blended learning, since in 32 hours of classes the student must appropriate contents that start from the historical background of physical activities aimed at people with disabilities, to planning and directing the teaching-learning process of IPE.

Consequently, it is necessary to incorporate contents related to educational inclusion in its generality, which serve firstly as a precedent for the subject EFA and secondly for the interdisciplinary and transversal nature of the subject, which enables a formation in accordance with the policies and goals for education at the international level.

For this reason, didactic-methodological tools are established that will make it possible to manage educational inclusion in the disciplines of the career; for which an algorithm was organized to start from the general objectives of the program to the bibliography, thus reaching the program of the subjects. These are based on general methodological recommendations for each discipline (Table 1).

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Addressing generalities of:</th>
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<tbody>
<tr>
<td>Discipline Psychopedagogy</td>
<td>Psychopedagogical characteristics of people with disabilities</td>
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<td>according to the classification.</td>
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<td>Methods of Analysis and</td>
<td>Psychopedagogical care for people with disabilities.</td>
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<tr>
<td>Research in Physical Culture</td>
<td>The problems of PE and sport for the disabled.</td>
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<tr>
<td>Marxism Leninism</td>
<td>Respect for diversity and positive attitude towards disability.</td>
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<td>History of Cuba</td>
<td>History of the Paralympic Games</td>
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<td>Preparation for Defense</td>
<td>Attention to the disabled in peacetime.</td>
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<tr>
<td>Biological Foundations of Physical Activity</td>
<td>Morphofunctional characteristics of people with disabilities.</td>
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<td>Biomechanical analysis for the effectiveness of sports practice in people with disabilities.</td>
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<tr>
<td>Theory and Practice of Physical Education</td>
<td>The theory and methodology of Physical Education in terms of the inclusion of people with disabilities.</td>
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<td>History of each adapted sport.</td>
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<tr>
<td>Theory and Practice of Sports</td>
<td>Theory and methodology in adapted sports.</td>
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<tr>
<td>Therapeutic Prophylactic Physical Culture</td>
<td>PC as a therapeutic tool for people with disabilities.</td>
</tr>
<tr>
<td>Physical Recreation</td>
<td>Recreation as a means of social inclusion of people with disabilities.</td>
</tr>
<tr>
<td>Research Labor Formation</td>
<td>Teaching practice in special schools and in groups with included schoolchildren.</td>
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Next, each discipline and subject is introduced in its conception, detailing in each element of its structure the ways in which the recommendations given above can be put into practice. The following is exemplified in the discipline *Theory and Practice of Physical Education*.

1. To incorporate to the general objectives the respect for diversity, the IPE, the attention to disability, terms that are not present; for example, objective # 2 includes what is indicated in bold:

2. To demonstrate in their daily performance a general culture that evidences the protection of the environment, with emphasis on the hygienic-sanitary conditions of sports and personal facilities; saving, sexuality, respect for diversity and gender equality relations, care of their physical, mental health and nutritional education, which allow them responsible behavior, in line with a sustainable socio-economic development.

3. Readjustment of the knowledge system, emphasizing educational inclusion as an invariant and not in isolation, as shown by citing two of them (presented first as it is reflected in the existing program and then the readjusted one is shown) (Figure 1).
Fig. 1. - Example of readjustment in the knowledge system

1. In the skills system incorporate attention to disability according to the skill described; exemplified below:

   - The existing one: to characterize the motor and psychological development of the different age groups, in order to guarantee an adequate planning of the classes from the methodological point of view.

   - The one to be readjusted: to characterize the motor and psychological development of the different age groups, also taking into account the presence of disabilities, in order to guarantee an adequate planning of the classes from the methodological point of view.

1. In relation to the system of values, they are described in a general way; respect for diversity, as well as a positive attitude towards disability, should be intended.

2. With respect to the methodological indications, to point out in the intradisciplinary relations the methodological work necessary to incorporate the knowledge related to inclusion in the contents of the other subjects of the discipline; likewise, in the treatment given to the curricular strategies, to add aspects that particularize educational inclusion.

3. For the bibliography, it is necessary to add books and scientific articles that deal with IPE.

This whole process is necessary since each of these aspects are then derived to the subjects, for which methodological work and good educational practices are essential. Thus, in the subjects, special emphasis was given to the knowledge system and invariants are provided to be included, which are translated into inter and
intradisciplinarity, favoring the acquisition of precedent inclusive knowledge that guarantees its implementation in the adapted Physical Education subject. The following are examples of this action:

- In the subject Rhythmic and Ludic Education, to incorporate in the topic #1 the adapted games in the PE class.
- In the subject Basic Gymnastics, to incorporate among other aspects, the organizational procedures in the IPE.
- In the subjects of the sports motives classes of the PE (athletics, basketball, soccer, baseball, handball), to incorporate the generalities of the practice of the adapted and inclusive sport.

This procedure enhances the theoretical preparation of teachers as well as the self-preparation of students; good practices that benefit the achievement of reflective and developmental thinking are thus circumscribed with the use by the teacher of problematic situations, extra-class work and independent work, in addition to the use of proactive methods.

**DISCUSSION**

"The effectiveness of inclusive educational practice enables the right of all to be educated in diversity, for which it is necessary that modifications are generated within and outside the school environment" (Gómez et al., 2016, p.60); professional skills that are acquired in the course of the career, guaranteed by a formation that enables the independence and creativity of the student.

It has been beneficial for Syllabus E, the importance of attention to diversity as an essential professional competence for the future performance of students pursuing the Bachelor's degree in Physical Culture. However, the theoretical knowledge and methodological treatment that allows the attention to students with disabilities not only in special education, but also in general education, where they are included, is still conceived in a fragmented way.

From the actions of the Physical Culture and Sport professional, his pedagogical response must start from the Physical Education program and the psychomotor characterization of schoolchildren with disabilities to establish his intervention strategy through adapted physical-sports activities (Gómez et al., 2019) planned from his class system, which ensures that everyone learns equally, without making a distinction between some and others, making adjustments to the contents, methods, organizational forms, procedures, materials, in addition to evaluation.

Hence, each subject of the course contributes to the student's perception of the pedagogical performance, in a context in which he/she must train his/her students with an integral physical-educational approach; therefore, the proposed aspects are aimed at sustaining the unity of theory and practice, academics and pedagogy, so that there is coherence between the formation received and the future professional performance.
Teachers are a decisive piece in the participation of people with disabilities in Physical Education (Rubinstein and Franco, 2020); therefore, the formation process should provide the necessary tools, both theoretical and practical, that enable the student to face diversity in the Physical Education class, which from the proposal. These are provided by all the disciplines of the career, guaranteeing positive attitudes towards disability; being essential the modeling of the class and the activities of improvement as part of the methodological preparation.

CONCLUSIONS

Consequently, and by way of conclusion, the established didactic-methodological tools favor, firstly, respect for diversity, secondly, the understanding of its attention from the performance of the Bachelor in PC to address the needs and interests of the group of people with disabilities, in addition to the transversality of the subject in the Syllabus, encouraging creativity and innovation in the teaching-learning process.

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**Conflict of interests:**
The authors declare not to have any interest conflicts.

**Authors' contribution:**

**Annia Gómez Valdés:** Conception of the idea, literature search and review, instrument making, instrument application, compilation of information resulting from the instruments applied, statistic analysis, preparation of tables, graphs and images, database preparation, general advice on the topic addressed, drafting of the original (first version), review and final version of the article, article correction, authorship coordinator.

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