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Adaptaciones curriculares para la inclusión de estudiantes con discapacidad a la carrera de Pedagogía de la Actividad Física y Deporte

Curricular adaptations for the inclusion of students with disabilities in the Physical Activity and Sports Pedagogy career

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Palabras claves:
Adaptaciones curriculares, Pedagogía de la Actividad física y Deporte, inclusión, Discapacidad, Educación Física

Resumen

Introducción. La presencia de estudiantes con discapacidad en la Educación Superior constituye uno de los principales retos de los sistemas educativos actuales, siendo necesario el establecimiento de manifiestos pertinentes que establezcan políticas y estatutos de carácter inclusivo, sin excepción de carrera alguna como es el caso de la Pedagogía de la Actividad Física y Deporte. **Objetivo.** Indagar las adaptaciones curriculares que promueven la inclusión de estudiantes con diferentes discapacidades en la Carrera de Pedagogía de la Actividad Física y Deporte en el contexto ecuatoriano. **Metodología.** *Diseño de investigación:* enfoque mixto de investigación, en su planteamiento cuantitativo diseño no experimental, descriptivo, de campo y de corte trasversal. En su planteamiento cualitativo se planteó un diseño fenomenológico. *Población y muestra:* 39 docentes de la Carrera de Pedagogía de la Actividad Física y Deporte de 18 universidades del Ecuador. *Técnicas e instrumentos:* Se aplicó la técnica cuantitativa de la encuesta y como instrumento un cuestionario auto administrado sobre los tipos de discapacidad y las adaptaciones curriculares que aplican los docentes en la carrera de Pedagogía de la Actividad Física y Deporte. En el desarrollo del planteamiento cualitativo se aplicó entrevistas en profundidad a un estudiante representante de cada tipo de discapacidad, abordando los siguientes tópicos a través de una pregunta abierta. *Tratamiento estadístico de los datos:* Paquete estadístico SPSS versión 25, desarrollando un análisis de valores medios y desviaciones estándares para las variables de origen cuantitativo y un análisis de frecuencias y porcentajes para las variables de origen cualitativo. **Resultados.** Se determinaron las adaptaciones curriculares aplicadas por los docentes en relación con la discapacidad física, visual e intelectual. Categorías generales, axiales y ejecutivas que determinaron una teoría emergente en base a las percepciones y experiencias comunicadas por parte de los sujetos intervenciones en el proceso de investigación. **Conclusión.** Se han realizado avances significativos en adaptaciones curriculares para estudiantes con discapacidades en la carrera de Pedagogía de la Actividad Física y Deporte, existen brechas notables en términos de inclusión efectiva y sensibilización de la comunidad educativa. **Área de estudio general:** Educación. **Área de estudio específica:** Educación Física.

Keywords:

Abstract

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Curricular adaptations, Physical Activity and Sport Pedagogy, inclusion, Disability, Physical Education, Physical Education

Introduction. The presence of students with disabilities in Higher Education constitutes one of the main challenges of current educational systems, being necessary the establishment of pertinent manifestos that establish policies and statutes of inclusive character, without exception of any career as is the case of the Pedagogy of Physical Activity and Sport. objective. To investigate the curricular adaptations that promote the inclusion of students with different disabilities in the career of Physical Activity and Sports Pedagogy in the Ecuadorian context. Methodology. Research design: mixed research approach, in its quantitative approach, non-experimental, descriptive, field, and cross-sectional design. In its qualitative approach, a phenomenological design was proposed. Population and sample: 39 teachers of the Physical Activity and Sport Pedagogy Career of 18 universities in Ecuador. Techniques and instruments: The quantitative technique of the survey was applied and as an instrument a self-administered questionnaire on the types of disability and curricular adaptations applied by teachers in the career of Pedagogy of Physical Activity and Sport. In the development of the qualitative approach, in-depth interviews were applied to a student representative of each type of disability, addressing the following topics through an open question. Statistical treatment of the data: SPSS version 25 statistical package, developing an analysis of mean values and standard deviations for variables of quantitative origin and an analysis of frequencies and percentages for variables of qualitative origin. Results. The curricular adaptations applied by teachers in relation to physical, visual, and intellectual disabilities were determined. General, axial, and executive categories that determined an emerging theory based on the perceptions and experiences reported by the subjects involved in the research process. Conclusion. Considerable progress has been made in curricular adaptations for students with disabilities in the career of Physical Activity and Sports Pedagogy, there are notable gaps in terms of effective inclusion and awareness of the educational community.**General area of study:**Education. Specific area of study: Physical Education.

Introduction

The presence of students with disabilities in Higher Education constitutes one of the main challenges of current educational systems, making it necessary to establish relevant manifestos that establish inclusive policies and statutes (Campos et al., 2020).

TheThe United Nations Educational, Scientific and Cultural Organization (UNESCO, 1994) has pointed out that, although placing students with disabilities in ordinary institutions is part of the inclusion process, it is not enough since their participation during learning must be encouraged to achieve full development of their potential, through an education that is accessible and adapted to each student's needs.

According to Damiani (2023), national and international policies and legislation, such as the UN Convention on the Rights of Persons with Disabilities (CRPD), establish inclusive education as a fundamental right. Legal frameworks oblige educational institutions to make the necessary adjustments to facilitate this right, including the implementation of curricular adaptations in programs related to physical activity and sport. Understanding these legal bases is essential to developing and implementing effective strategies that promote inclusion.

Today, the challenge of inclusive education lies in ensuring that it is of high quality and that it is offered equitably, without stigmatizing or discriminating against any individual. It is essential that access to education is based on principles of equality and excellence, allowing students, regardless of whether they have a disability or not, to live and learn together throughout their career (Clavijo & Bautista-Cerro, 2019).

Similarly, in the Ecuadorian system, young people with disabilities have encountered numerous obstacles to exclusion in various spheres of society, especially with regard to access to education at all levels, highlighting the particular difficulty in entering higher education (Before the implementation of the 2008 Constitution, which established a framework for inclusion and equity in sectors such as education, social security and health, people with disabilities faced significant restrictions in accessing and fully participating in university education. This situation severely limited their opportunities for personal and professional development (López & Villacrés, 2023).

However, today, there is a desire for equal opportunities in education, ensuring that everyone, regardless of their needs and diversity, has access to quality education. However, this poses significant challenges in the country's higher education. Despite the existence of a solid legal basis, which promotes the inclusion of people with disabilities, access to university education for this group remains limited (Valdivieso et al., 2021).

Inclusive education is an approach that seeks to respond to the diversity of needs of all students through increased participation in learning, cultures and communities, and to reduce exclusion within and outside the educational setting (Vélez-Miranda et al., 2020).

In the context of Physical Activity and Sport Pedagogy, this approach involves adapting the curriculum, pedagogical practices and the physical environment to ensure that students with disabilities not only access, but also fully participate and progress in their learning at the same level as their peers without disabilities (Ortiz et al., 2023).

The lack of updated data on the current situation is a challenge, and more research is needed to fully understand the needs of students with disabilities in Ecuadorian higher education. This raises questions about how to train teachers and how to make curricular adaptations.

Curricular adaptations comprise a series of measures that seek to overcome difficulties related to learning and student participation in educational activities. The objective is to enhance these processes according to individual educational needs, which favors the personal and social development of students. These adaptations involve the modification of various aspects of the curriculum, both in a significant and non-significant way (Blanco & Duk, 2011).

Non-significant curricular adaptations seek to achieve the same objectives and content of the standard curriculum by applying means, resources or technical aids that allow access to learning and assessment systems without altering the dynamics of the course, cycle or educational level in which the student is enrolled. On the other hand, significant curricular adaptations imply substantial modifications in the content and objectives of various curricular areas, which affects the attainment of capacities and skills to be acquired during the corresponding educational level (Enciso et al., 2016).

In the case of institutions where there is a lack of curricular adaptations, learning barriers, difficulties in participation and socialization, as well as feelings of marginalization and low self-esteem of students can be generated (Otondo, 2018). In Ecuador, despite the multiple benefits that could be brought about by applying inclusion methodologies to university students with disabilities, no information has been found on guides that indicate how to make curricular changes that guarantee equal opportunities and non-discrimination of students with disabilities (Ocampo, 2018).

From this perspective, it is necessary to implement curricular adaptations that allow the design of flexible, timely and appropriate educational practices to address the diversity of characteristics, skills, resources and needs presented by people with disabilities in different educational environments (Ocampo, 2013). This implies making modifications that affect the planning, execution and development of educational activities through interventions in the curriculum, in order to adapt the curricular contents to the teaching and learning processes of this population (Enciso et al., 2016), where the aim is to guarantee the active and equitable participation of all students, regardless of their abilities, promoting equal opportunities, diversity and equity (Simón & Molina, 2022).

Pedagogical approaches such as constructivism hold that learning is an active process, where knowledge is built from experience. In physical education, this means creating learning opportunities that are accessible and meaningful for students with diverse abilities, encouraging their participation and adapting activities to ensure that each student can reach their full potential (Ortiz, 2015).

For Arguedas (2004), understanding the specific characteristics of different disabilities is crucial to developing effective curricular adaptations. For example, students with physical disabilities may require adaptations in sports equipment or game rules, while those with intellectual disabilities may benefit from clearer instructions and extended times to complete activities.

Identifying and understanding the special educational needs of students with disabilities allows educators to adapt their teaching and assessment methods effectively. This includes the use of assistive technology, differentiated teaching techniques, and modifying learning environments to ensure that each student can fully participate in activities (Hernández & Samada, 2021).

Curricular adaptations may include modifying learning objectives, course content, and pedagogical strategies to make them accessible to students with disabilities. In practice, this may mean introducing adaptive sports, utilizing specialized equipment, or modifying rules to ensure equal participation for all students (Castañeda & Bermúdez, 2023).

Palma-Picado et al. (2021) find that the development and selection of accessible teaching resources and materials are critical to supporting the learning of students with disabilities. This may include enhanced visual and auditory materials, specialized educational software, and sports equipment designed for use by people with diverse physical and sensory abilities.

Teacher training in inclusive practices is essential to ensure that educators are prepared to respond to the needs of all students. This involves not only theoretical knowledge about disability and curricular adaptation, but also practical skills in implementing inclusive pedagogical strategies and using assistive technology (Bórquez, 2023).

For this reason, it is important to understand the different positions and ideas that must be taken into account when having students with different disabilities in our university classes.

Curricular adaptations for students with physical disabilities

Curricular adaptations for students with physical disabilities in practical subjects in the Bachelor of Physical Education require careful and considered planning that takes into account the individual needs of each student. This involves modifying physical activities,

using specialized equipment, and adapting the environment to ensure accessibility (González et al., 2023). For example, in team sports, rules can be adjusted to allow more time for the execution of movements or for the use of assistive devices that facilitate student participation. In addition, the design of sports facilities should consider barrier-free access, safe and appropriate surfaces, and the availability of adapted equipment.

A fundamental part of these adaptations is effective communication between teachers and students with physical disabilities to understand their capabilities, limitations, and preferences. Educators must be proactive in creating an inclusive environment that promotes student self-esteem and motivation, focusing on what they can do rather than their limitations. The inclusion of assistive technologies and the support of personal assistants or physical therapists during classes can significantly improve the educational experience of these students, allowing them to achieve their learning goals to the fullest extent of their potential (Duarte-García & Sánchez-Araque, 2021).

Curricular adaptations for students with hearing disabilities

For students with hearing impairments, curricular adaptations in practical PE subjects focus on ensuring that communication is effective and that all students can fully access instructions and course content. This may involve the use of sign language interpreters in the classroom, as well as the implementation of enhanced visual resources and assistive technology, such as sound amplification systems or the use of tablets and applications that facilitate communication. In addition, teachers can adapt their teaching methods to include clear visual signs and practical demonstrations that help overcome communication barriers (Soto-Rey & Pérez-Tejero, 2014).

It is essential that learning materials and instructions are accessible to students with hearing impairments. This can be achieved by preparing study guides, lecture summaries, and teaching materials in written or digital formats that students can review before and after practical classes. Creating videos with subtitles or in sign language that demonstrate specific sport techniques and skills can also be a valuable tool to support independent learning and review of key concepts (Colorado & Mendoza, 2021).

Curricular adaptations for students with intellectual disabilities

For students with intellectual disabilities, curricular adaptations in practical physical education subjects should focus on providing a structured, predictable, and supportive learning environment that recognizes their unique learning needs. Simplifying instructions, using consistent routines, and step-by-step teaching are effective strategies that help these students better understand tasks and participate meaningfully. Additionally, it may be beneficial to break down sports skills and techniques into smaller,

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more manageable components, allowing students to progress at their own pace and celebrate individual accomplishments along the way (Páez et al., 2022).

The inclusion of visual aids, such as pictograms or social stories, can be especially helpful for students with intellectual disabilities, as they provide clear reference points and facilitate understanding of rules and expectations within the physical education classroom environment. Implementing adapted games and activities that emphasize participation rather than competition can foster a positive and stimulating learning environment, where all students feel able to contribute and participate (Márquez, 2023).

Curricular adaptations for students with visual impairments

For students with visual impairments, curricular adaptations in practical subjects in the Bachelor of Physical Education (BAP) involve creating a learning environment that maximizes the use of the remaining senses, such as hearing, touch, and in some cases smell, to facilitate safe participation in physical and sporting activities (Escudero et al., 2021). This may include the use of materials with differentiated textures, balls with sounds, and detailed verbal description of activities and the environment. Educators should focus on providing clear and concise instructions, using detailed verbal descriptions and physical guidance when necessary, to help students orient themselves in space and understand specific sport movements or techniques.

Based on the theoretical foundation that establishes the need to develop curricular adaptations for practical subjects in the training of Physical Education teachers, the main objective of this research is to investigate the curricular adaptations that promote the inclusion of students with different disabilities in the Physical Activity and Sports Pedagogy Career in the Ecuadorian context.

Methodology

The study developed responded to a mixed research approach. In its quantitative approach, a type of research was applied by non-experimental design, by descriptive scope, by obtaining field data and cross-sectional. In its qualitative approach, a phenomenological design was proposed to determine the experiences of students from each disability group in the application of the different curricular adaptations proposed by teachers. In addition, the synthetic analytical method was applied in the process of developing the theoretical foundation of the study, the inductive-deductive method in the process of analyzing the results obtained and drawing conclusions, as well as the mathematical-statistical method for the analysis and presentation of the results achieved in the quantitative component.

The study population was taken into account all the teachers of the Physical Activity and Sports Pedagogy Degrees of 18 universities in Ecuador, through a non-probabilistic

sampling by volunteers a sample of 39 teachers was selected, characteristics of which are observed:

Table 1

Characteristics of the study sample

Variables	Male (n=24 – 61.5%)		Female (n=15 – 38.5%)		Total (n=39 – 100%)	
	M	DS±	M	DS±	M	DS±
Age (years)	42.50	±10.98	39.20	±11.91	41.23	±11,31
Years of Experience	11.96	±7.28	9.80	±5.65	11,13	±6.71

NoteDescriptive analysis of mean values (M) and standard deviations (SD±)

The analysis of the selected sample showed that it was mostly made up of male teachers, who had an average age of 3.30 years older than the female group and similarly their experience was 2.16 years greater.

Research techniques and instruments

The quantitative survey technique was applied, and a self-administered questionnaire was used as an instrument on the types of disabilities and the curricular adaptations applied by teachers in the Physical Activity and Sports Pedagogy course at the different universities in Ecuador that offer it. The questionnaire consisted of 12 items, aimed at obtaining information on the different disabilities, their degree and the curricular adaptations applied by them according to the subjects and contents planned in each one of them.

In the development of the qualitative approach, in-depth interviews were applied to a student representing each type of disability, addressing the following topics through an open question:

- ***Experience with adaptations:***How have specific adaptations influenced your participation in practical subjects?
- ***Feeling of inclusion:***Do you feel fully included and integrated in the practical subjects thanks to the adaptations made?
- ***Specific challenges and needs:***What specific challenges do you encounter in your education due to your disability and what additional needs do you have?
- ***Opinion on the effectiveness of the adaptations:***What do you think about the effectiveness of adaptations in practical subjects?
- ***Suggestions to improve inclusion:***What improvements would you suggest to increase inclusion and accessibility in practical subjects from your perspective?

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- ***Support from the educational community:***How do you rate the level of understanding and support from your teachers and classmates in practical subjects?

Statistical treatment of data

The SPSS statistical package version 25 was applied, developing an analysis of mean values and standard deviations for the variables of quantitative origin and an analysis of frequencies and percentages for the variables of qualitative origin.

Results

Taking as a reference the information received in the survey carried out by the different teachers in the training of the Physical Activity and Sports career at a national level, the presence of three types of disability with their different classifications was established (table 2).

The practical subjects that are agreed upon at a national level in their curricular grids were the starting point for unifying the criteria for curricular adaptations by teachers in their classes. These were unified based on the general perspective of the responses achieved and are presented classified by the type of disability present among the students in training in this professional branch.

Table 2

Common criteria for curricular adaptations to practical subjects in the training of the Physical Activity and Sport career in the Ecuadorian context

Subject	Physical disability	Visual impairment	Moderate intellectual disability
Gym	Use of adapted equipment, such as low parallel bars, and assistance for movements requiring support.	Use of sound and tactile guides.	Simple and clear instructions, with visual demonstrations.
Body Expression	Encourage creativity with movements that can be performed while sitting or with the help of equipment.	Focus on the perception of space through sounds and textures.	Structured activities with easy-to-follow steps.
Swimming	Implement pool access ramps and provide swimming assistants if necessary.	Guide lines on the pool floor and acoustic signals to indicate the limits.	Step-by-step teaching with positive reinforcement.
Athletics	Wheelchair skills or prosthetic adaptations.	Tracks with different textures and use of running guides.	Simple activities and racing games with clear rules.

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Combat Sports	Adapted techniques for competitors in wheelchairs or with mobility limitations.	Contact and sound based training.	Teaching basic techniques with a focus on safety.

Table 2

Common criteria for curricular adaptations to practical subjects in the training of the Physical Activity and Sport career in the Ecuadorian context (continued)

Subject	Physical disability	Visual impairment	Moderate intellectual disability
Theory and Practice of Games	Adapted games that do not require extensive mobility.	Games with sound and tactile elements.	Simple and fun games with easy rules.
Soccer	Football for people in wheelchairs or with reduced mobility.	Balls with sounds for orientation.	Focus on basic skills and teamwork.
Dance and Intercultural Artistic Manifestations	Adaptive dance, with emphasis on upper body movements.	Focus on rhythms and sounds.	Simple and expressive dance routines.
Basketball	Wheelchair basketball under Paralympic regulations.	Balls with sounds and acoustic signals to guide the placement of the hoop.	Teaching fundamental skills and team games.
Sports Training	Strengthening and flexibility exercises adapted for different types of physical disabilities.	Training based on spatial and auditory perception.	Training regimen with clear and achievable goals.
Recreation	Accessible recreational activities, such as board games or adapted sports.	Activities that emphasize the use of other senses.	Fun and accessible activities.
Weights	Adapted weight lifting equipment and assistance if necessary.	Orientation and touch assistance.	Light weight training with constant supervision.
Volleyball	Sitting volleyball.	Use of balls with sounds and nets with different textures.	Simplified games with an emphasis on participation.

Note: Own research data

The response obtained in the survey allows us to carry out a comprehensive analysis in relation to the curricular adaptations that teachers apply in relation to each disability present:

Physical disability:

- An emphasis was observed on physical accessibility and adaptation of equipment.

- Inclusive teaching methods are implemented that allow the participation of all students.
- In addition, attention is paid to personalizing learning, considering individual needs and promoting social integration.
- These adaptations reflect a commitment to inclusive education and equal opportunities for all students.

Hearing Impairment:

- A series of common strategies adopted in curricular adaptations for students with visual impairments were observed.
- These adaptations include the use of sound and tactile cues, perception of space through sounds and textures, and a focus on auditory and spatial orientation.
- Balls and implements with sounds and textured guide lines are used to facilitate orientation and participation in activities.
- The importance of training based on contact, sound, and the use of other senses is emphasized, thus promoting effective inclusion in the educational environment.

Moderate intellectual disability:

- Several common points were observed in the curricular adaptations for students with moderate intellectual disabilities.
- This includes the implementation of simple and clear instructions, accompanied by visual demonstrations.
- Emphasis is placed on structuring activities with easy-to-follow steps and step-by-step teaching, reinforced with positive feedback.
- The activities proposed are simple and often fun, with clear rules and a focus on basic skills and teamwork.
- Safety and participation in a supervised and accessible environment are prioritized. These adaptations seek to facilitate learning and the effective inclusion of these students.

Based on the phenomenological design proposed to determine the experiences of students from each disability group regarding the application of the different curricular adaptations proposed by teachers by representatives of each disability, the following responses were obtained:

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Table 3

Answers to the questions posed to each disability representative

Ask	Idea based on the answers		
	Physical disability	Visual impairment	Moderate intellectual disability
How have specific adaptations influenced your participation in practical subjects?	"Gymnastics accommodations allow me to actively participate, although I sometimes feel like they could be more inclusive."	"Sound guides in athletics help me a lot, but in sports like basketball, I feel less included."	"Clear, step-by-step instructions in gymnastics help me follow along, but I sometimes feel left out in more complex sports."
Do you feel fully included and integrated in the practical subjects thanks to the adaptations made?	"I feel included in swimming thanks to the access ramps, but in athletics, the lack of adapted equipment limits my participation."	"In swimming, guidelines are effective, but in team sports, adaptations are insufficient."	"I feel included in activities like dance, but in sports like soccer, I find it difficult to keep up."
What specific challenges do you encounter in your education due to your disability and what additional needs do you have?	"In combat sports, the adaptations are minimal, which makes me feel less included."	"Accommodations in dance are limited, which affects my feeling of inclusion."	"In swimming, the adaptations are adequate, but in team sports, it is more difficult for me."
What do you think about the effectiveness of adaptations in practical subjects?	"Adaptations are useful, but we need more variety in adapted sports."	"Accommodations are generally helpful, but there are inconsistencies across subjects."	"Adaptations are helpful, but I need more time to adjust."
What improvements would you suggest to increase inclusion and accessibility in practical subjects from your perspective?	"I suggest including more adapted activities in the curriculum to improve inclusion."	"It would be beneficial to have more tactile and sound resources in all subjects."	"It would be helpful to have more fun and simplified activities to improve inclusion."
How do you rate the level of understanding and support from your teachers and classmates in practical subjects?	"Teachers are understanding, but we need more awareness among students."	"Some teachers are excellent at adapting classes, but others are not as prepared."	"Teachers are generally understanding, but some classmates don't understand my needs."

Note: Own research data

Based on the responses obtained and a detailed analysis of the common ideas presented by each interviewee, they were categorized into general, axial and executive:

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Table 4

General, axial and executive categories based on the ideas of the interviewees

General categories	Axial categories	Executive categories
Diversity in Adaptations: Variability in the effectiveness and adequacy of curricular adaptations in different sports and subjects.	**Barriers and Facilitators:** Identification of factors that act as barriers or facilitators in educational inclusion and accessibility.	**Improvements in Curricular Adaptations:** Specific proposals to improve curricular adaptations based on the specific needs of students.
Inclusion Experiences: Degree of inclusion and participation in physical and sports activities.	**Individual Needs and Preferences:** Recognition of the diversity in individual needs and preferences of students with disabilities.	**Teacher Training Strategies:** Development of strategies to improve the training and awareness of teachers and colleagues.
Social and Community Interaction: Level of awareness and support of the educational community towards students with disabilities.	**Understanding and Awareness:** Assessing teachers' and peers' understanding and awareness of disabilities and their impacts.	**Promoting an Inclusive Culture:** Fostering an inclusive culture that embraces diversity and facilitates full participation of all students.

The emerging theory, based on the triangulation of the responses obtained and the analysis of the general, axial and executive categories, suggests that, although significant progress has been made in curricular adaptations for students with disabilities in the Physical Activity and Sport Pedagogy program, there are notable gaps in terms of effective inclusion and awareness of the educational community. The theory highlights the need for a more personalized and holistic approach in teacher training in Physical Education, which does not only focus on physical adaptations, but also on a deep and empathetic understanding of the individual needs of students. Furthermore, it emphasizes the importance of fostering an inclusive culture and greater training and awareness among teachers and colleagues, to ensure true inclusion and participation of all students in a diverse and welcoming educational environment.

Discussion

In the present study, the results obtained were the different curricular adaptations established by teachers in the Physical Activity and Sports Pedagogy course in the Ecuadorian context. These adaptations are established for different types of disabilities, including physical disabilities. These results are compared with those obtained by Alcantud et al. (2000). The comparison between the two studies in relation to students with physical disabilities reveals similarities in the approach to modify conventional sports and in the use of specialized equipment and assistance, but they differ in the variety and specificity of the adaptations. While our study offers a wide range of adaptations for

activities such as dance, wheelchair basketball and adapted gymnastics, the second one focuses on more general adaptations for specific sports such as sitting volleyball and theoretical adaptations in athletics. In addition, the present study covers a broader spectrum of activities, including artistic aspects, unlike the second one, which focuses on more traditional sports. These differences possibly reflect variations in available resources, student needs, or educational philosophies of institutions, highlighting the importance of a personalized and flexible approach to physical education to ensure inclusion and educational enrichment for all students, regardless of their physical abilities.

The comparison between the experiences of students with hearing impairments in different university programs related to Physical Education and sports is scarce in the scientific literature, however, the studies developed by Ortiz et al. (2023), reveal similarities and differences around hearing impairment. In both studies, the students interviewed emphasize the need for specific curricular adaptations, such as sound guides or guidelines in sports, and the variability in the preparation and dedication of teachers to accommodate their needs. However, they differ in aspects such as the type of adaptations required; our study benefits from tactile and sound resources, while the second highlights the importance of personalized attention and support in reading and writing. In addition, they highlight challenges in interacting with peers and the dependence on an interpreter, aspects not mentioned by the present study. These differences underline the need for personalized and flexible educational approaches, as well as greater training and awareness among educators and peers to improve the inclusion and learning of students with hearing impairments.

Conclusions

Based on the analysis of the responses obtained from teachers at the different Higher Education institutions that offer the Physical Activity and Sports Pedagogy degree and the experiences expressed by representatives of each of the disabilities analyzed, conclusions can be drawn based on the following points of analysis:

- ***Diversity in adaptations and general structure:***Curricular adaptations vary significantly across different sports, reflecting a tailored approach that addresses individual needs. This diversity is crucial to achieving effective and equitable participation of students with disabilities in sporting activities.
- ***Inclusion experiences and specific adaptations:***Adaptations for moderate physical, visual and intellectual disabilities facilitate inclusion and participation in sport. Modification of equipment, use of sensory aids and simplification of instructions are concrete examples that enhance the inclusive experience.

- ***Social and community interaction:***This research reflects a level of awareness towards students with disabilities, promoting an inclusive educational environment. However, there is room for improvement in the understanding and support of the educational community.
- ***Barriers and facilitators in understanding and awareness:***Both barriers and facilitators to educational inclusion are identified. Lack of teacher training and inadequate awareness-raising emerge as key challenges.
- ***Individual needs and preferences:***Recognizing the diversity of needs and preferences is essential to effectively adapting the sports curriculum.
- ***Improvements in curricular adaptations and teacher training strategies:***The need for concrete proposals to improve curricular adaptations and develop effective strategies for teacher training is suggested, thereby increasing awareness and understanding of disabilities.
- ***Promoting an inclusive culture:***Promoting an inclusive culture that embraces diversity is essential to facilitating the full participation of all students.

Conflict of interest

The authors declare that there is no conflict of interest in relation to the submitted article.

Bibliographic References

Alcantud Marín, F., Ávila Clemente, V., & Asensi Borrás, MC (2000). The integration of students with disabilities in higher education. Editorial Universitat id Valencia.https://roderic.uv.es/rest/api/core/bitstreams/62b7658d-8026-477d-8c03-725c68124280/content

Arguedas Negrini, I. (2004). Reactions of professors at the University of Costa Rica to the flexibility of the curriculum for students with special educational needs. Electronic Journal "Current Research in Education", 4(2), 5-7.https://www.redalyc.org/articulo.oa?id=44740208

Blanco Guijarro, R., & Duk Homad, C.(2011). Inclusive education in Latin America and the Caribbean. University of Salamanca Editions, 17, 37-55.https://gredos.usal.es/bitstream/handle/10366/120844/Educacion_inclusiva_en_Amer?sequence=1

Bórquez Hernández, G. (2023). Continuing education focused on reflection on teaching practice: experience of pedagogical groups and teacher support in the classroom [Unpublished Doctoral Thesis, University of Seville, Seville].https://dialnet.unirioja.es/servlet/tesis?codigo=317626

Campos Granell, J., Llopis Goig, R., Gimeno Raga, M., & Maher, A. (2020). Perceived competence to teach students with special educational needs in Physic. Retos, 39, 372–378.https://doi.org/10.47197/retos.v0i39.79498.https://recyt.fecyt.es/index.php/retos/article/view/79498

Castañeda Hernández, P. C., & Bermúdez Granados, E. (2023). Recognizing: Communicative Bridges, Physical Education and Hearing Disability [Degree Thesis, National Pedagogical University]http://repository.pedagogica.edu.co/bitstream/handle/20.500.12209/19207/Proyecto%20Curricular%20Particular%20Recono-ser.pdf?sequence=4

Clavijo Castillo, RG, & Bautista-Cerro, MJ (2019). Inclusive education. Analysis and reflections on Ecuadorian higher education. Alteridad, 15(1), 113–124.https://doi.org/10.17163/alt.v15n1.2020.09.https://alteridad.ups.edu.ec/index.php/alteridad/article/view/1.2020.09

Colorado Espinoza, ME, & Mendoza Moreira, FS (2021). Supporting teaching materials in mathematics curricular adaptations for people with intellectual disabilities. Conrado, 17(80), 312-320.http://scielo.sld.cu/scielo.php?script=sci_arttextypid=S1990-86442021000300312

Damiani Pellegrini, Luis Romano. (2023). Theoretical-conceptual foundations of the United Nations Convention on the Rights of Persons with Disabilities: the theory of human rights and the social model of disability. Mexican Yearbook of International Law, 23(23), 391-424.https://doi.org/10.22201/iij.24487872e.2023.23.17903.https://revistas.juridicas.unam.mx/index.php/derecho-internacional/article/view/17903/18249

Duarte-García, M., & Sánchez-Araque, K. (2021). Visual disability and emotion: design of a booklet on affective and emotional education aimed at teachers specialized in working with children who have visual impairment or low vision [Bachelor's Thesis, Catholic University of Colombia].https://hdl.handle.net/10983/26827.https://repository.ucatolica.edu.co/server/api/core/bitstreams/8486809f-e602-4402-8b48-19a90579bdd3/content

Escudero, E. F., Palmeros, G., & Pérez-Castro, J. (2021). Institutional barriers and facilitators in the academic training of graduates with visual disabilities. Polyphōnía: Inclusive Education Journal, 5(1), 44.https://core.ac.uk/download/pdf/428351691.pdf

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Enciso, J., Córdoba, L., & Romero, L. (2016). Curricular adaptations for the admission, permanence and graduation of students with disabilities: an experience from higher education. Culture Education and Society, 7(2), 72–93.https://revistascientificas.cuc.edu.co/culturaeducacionysociedad/article/view/1103

González Quezada, MSE, Armijos Robles, DM, & Ríos Robles, CP (2023). Curricular Adaptations for Addressing the Special Educational Needs of Girls and Boys with Intellectual, Physical, Hearing and Visual Disabilities. Ciencia Latina Multidisciplinary Scientific Journal, 7(1), 14235–14250.https://doi.org/10.37811/cl_rcm.v7i2.5845.https://ciencialatina.org/index.php/cienciala/article/view/5845

Hernández, P., & Samada, Y. (2021). Inclusive education from the legal educational framework in Ecuador. ReHuSo, 6(3), 52-67. DOI: 10.5281/zenodo.5512949.http://scielo.senescyt.gob.ec/scielo.php?script=sci_abstractypid=S2550-65872021000300063ylng=esynrm=iso

López Paredes, NA, & Villacrés López, JM (2023). The Principle of Equality and Inclusive Higher Education for People with Disabilities. Ciencia Latina Multidisciplinary Scientific Journal, 7(5), 4790 – 4812.https://doi.org/10.37811/cl_rcm.v7i5.8076.https://ciencialatina.org/index.php/cienciala/article/view/8076

Márquez, M.A. (2023). Inclusive education at the university. Journal of Human Rights and Education, 1(8), 167–188.https://revistaderechoshumanosyeducacion.es/index.php/DHED/article/view/143.https://revistaderechoshumanosyeducacion.es/index.php/DHED/issue/view/7

Ocampo, JC (2018). Disability, inclusion and higher education in Ecuador: the case of the Catholic University of Santiago de Guayaquil. Latin American Journal of Inclusive Education, 12(2), 97–114.https://doi.org/10.4067/s0718-73782018000200097.https://www.scielo.cl/scielo.php?pid=S0718-73782018000200097yscript=sci_abstract

Ocampo González, A. (2013). Inclusion of students with disabilities in higher education. Challenges and opportunities. Latin American Journal of Inclusive Education 6 (2), 227–239.http://riberdis.cedid.es/bitstream/handle/11181/5553/Inclusi%c3%b3n_de_estudiantes_en_situacion_de_discapacidad.pdf?sequence=1yrd=0031285734448318

Ortiz Granja, D. (2015). Constructivism as a theory and teaching method. Sophia,

Collection of Philosophy of Education, (19), 93-110.https://doi.org/10.17163/soph.n19.2015.04.https://sophia.ups.edu.ec/index.php/sophia/article/view/19.2015.04

Ortiz Martínez, MG, Villarreal Ángeles, MA, Aguirre Gurrola, HB, & Walkup Núñez, LA (2023). Special educational needs in the degree program in physical education and sports of the Universidad Juarez del Est. Retos, 50, 1232–1239.https://doi.org/10.47197/retos.v50.96776.https://recyt.fecyt.es/index.php/retos/article/view/96776

Otondo Briceño, M. (2018). Inclusion of students with disabilities in higher education. Espacios, 39(49), 3.https://www.revistaespacios.com/a18v39n49/a18v39n49p06.pdf

Tapia Berrios, C., & Manosalva Mena, S. (2012). Inclusion of students with disabilities in higher education. Rexe. Journal of Studies and Experiences in Education, 11(22), 13-34.https://www.revistaespacios.com/a18v39n49/a18v39n49p06.pdf

Paez Basabe, M., Arcia Melgarejo, S., Escalona García, C., Vargas Géliga, E., & Darias Ávila, N. (2022). Brochure of compensatory corrective pre-sports games for students with intellectual disabilities. Podium. Journal of Science and Technology in Physical Culture, 17(3), 1006-1017.http://scielo.sld.cu/scielo.php?script=sci_arttextypid=S1996-24522022000301006.

Palma-Picado, K., Delgado-Agüero, C., & Moreira-Mora, T.E. (2021). A practical proposal for the inclusion of blind students in an engineering degree: a case study. Latin American Journal of Inclusive Education, 15(1), 139–154.https://doi.org/10.4067/s0718-73782021000100139.https://www.scielo.cl/scielo.php?script=sci_arttextypid=S0718-73782021000100139

United Nations Educational, Scientific and Cultural Organization [UNESCO]. (1994). Salamanca Declaration and Framework for Action on Special Needs Education.https://unesdoc.unesco.org/ark:/48223/pf0000098427_eng

Simón, C., & Molina, P. (2022). Making inclusion a reality in schools: conditions, challenges and inspiring practices. Ibero-American Journal of Education, 89(1), 9 - 4.https://doi.org/10.35362/rie8915216 https://rieoei.org/RIE/article/view/5216/4570

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Soto-Rey, J., & Pérez-Tejero, J. (2014). Strategies for the inclusion of people with hearing disabilities in physical education. Spanish Journal of Physical Education and Sports, (406), 93–101.https://doi.org/10.55166/reefd.v0i406.30.https://www.reefd.es/index.php/reefd/article/view/30

Valdivieso, KD, Paspuel, DAV, Ruiz, JS, & Berrú, CBC (2021). Inclusive education in higher education: Proposal for a care model in Ecuador. Journal of social sciences, 27(3), 14-27.https://www.redalyc.org/journal/280/28068276002/html/

Vélez-Miranda, MJ, San Andrés-Laz, EM, & Pazmiño-Campuzano, MF (2020). Inclusion and its importance in educational institutions from the student integration mechanisms. Koinonía Interdisciplinary Peer-Reviewed Journal, 5(9), 5-27.https://doi.org/10.35381/rkv5i9.554.https://www.redalyc.org/journal/5768/576869060001/576869060001.pdf

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