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Article

Individualization and universal design for learning in competency-based physical education: A proposal for inclusive teaching

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Abstract: The Sustainable Development Goals have contributed to the evolution of physical education. As an objective, it is proposed to rethink a new individualized model and shift the paradigm of a physical education system poorly adapted to students. Teacher training is key to promoting inclusive, high-quality education. The LIRPSE (Lieberman-Brian Inclusion Rating Scale for Physical Education) framework can be a useful tool.

Keywords: competency-based learning; didactic methodology; inclusive education; physical education; teacher training; universal design for learning

1. Introduction

Learning and human development are fundamental elements of education. If in the field of physical education, Huizinga [1,2] already offered, from anthropology, a positioning related to the concept of *homo ludens*. However, many other specialists have offered different viewpoints [3]. Vigotsky [4,5] or Piaget [6] focused their attention on these elements and on cognitive or motor development. In this line, Mosston focused on methodologies to adapt situations to the class group [7,8]. And later, Riera [9,10] focused on learning and the possibility of achieving certain interpretative skills to attain knowledge. The aim of these models is to enhance the understanding of learning and provide strategies for engaging with students.

But pedagogical models have been dealt with in many different educational moments. And in the field of physical education, they have gained strength and evolved in recent years. Often, the same proposals in the educational field were being adapted for physical education. And if initially physical education was reminiscent of the military world or of robust bodies, now it seems that economic models are invading education. For all these reasons, different methodologies have been appearing, based on neuroscience, psychology, emotions, gamification, the virtual world or individual or collective responsibilities. And if it is true that they had and could make sense, in recent years it seems that they are often the excuse of large companies to benefit economically from the educational system [11–13]. As a result, conceptual ambiguities and confusion have arisen concerning terms such as strategies, styles, and models [14,15].

One of the proposals to clarify these concepts in the field of physical education didactics was the classification of teaching strategies into a first methodological level that distinguished analytical, global, mixed practices, work by circuits or teaching from keys. Likewise, a second level was related to learning styles and included the

traditional ones, those that encouraged individualization, those that promoted socialization and those that sought to enhance creativity. Finally, a third level was formed by teaching methods. These would be based on the elements that intervened in the teaching-learning-student process, the teaching figure, the content to be developed, and later the environment was also discussed. And so, the different pedagogical models would be shown [16]. In this way, already consolidated models were highlighted, such as cooperative learning, sports education, game-centered models, and emerging models, such as health-based physical education, service-learning or the self-construction model.

Throughout this process, the student was the central figure in knowledge acquisition. For this reason, the concept of individualization was key in any of these processes of acquiring skills, knowledge or competencies. Therefore, it was a basic aspect to take into account in any teaching situation. Individualization was understood as being able to distinguish something from others by peculiar qualities. Each individual was and is, consequently, different. The functioning of the organism itself, the heart, the lungs or the metabolism, is a distinctive element among people. In addition, size, sex, weight, age, nutrition, rest or level of physical activity became distinguishing human characteristics. But there were also many other physical, psychological and social characteristics among individuals that made, and still make, human beings unique. The degree of knowledge acquisition, the capacity to memorize, the capacity to understand explanations, the degree of intellectual maturity, the emotional capacity or the capacity to relate were only some elements of human complexity. We should also value the different key capacities or soft skills as unique to each individual and of interest for the new liquid world of the 21st century as described by Zygmunt Bauman, characterized by accelerated change. These capabilities, such as autonomy, responsibility, work organization, etc., would help to meet the fourth Sustainable Development Goal (SDG 4) proposed by UNESCO in the 2030 Agenda for Sustainable Development [17,18]: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

Physical education (PE) plays a pivotal role in the holistic development of students, encompassing physical, emotional, social, and cognitive growth. Engagement in regular physical activity not only enhances physical fitness but also fosters mental well-being and social skills. For instance, participation in team sports cultivates teamwork, cooperation, and communication abilities, essential for personal development [19].

Moreover, PE contributes to cognitive development. Research indicates that physical activity is linked to improved cognitive function, enhancing students' academic performance and problem-solving skills [20]. Additionally, PE provides an outlet for emotional expression, aiding in the management of stress and anxiety, thereby promoting emotional resilience [21].

Incorporating PE into the educational curriculum is essential for nurturing well-rounded individuals. By addressing various developmental domains, PE ensures that students are equipped with the necessary skills and attributes to navigate the complexities of life effectively.

In this idea, in this paradigm, individualization was that which took into account the student as a unique being who acted differently than another subject in the face of

the same stimulus. The teacher, trainer and facilitator., should understand and respect these differences that should be normalized. In this way, physical education, even sport, could be understood as an educational fact that helped to develop the personality of children [22].

In contemporary education, physical education faces significant ethical and social challenges that necessitate a shift toward more inclusive and equitable models. The growing awareness of gender inequalities, violence in sports, and the need to promote students' emotional well-being highlight the urgency of adopting pedagogical approaches that respect diversity and encourage the participation of all students [23]. Recent initiatives, such as the implementation of continuous training programs for sports professionals, aim to equip educators with the necessary tools to manage conflict situations and foster a culture of respect and inclusion in educational settings [24]. Additionally, the publication of guidelines for university teaching with a gender perspective provides resources and strategies to break gender stereotypes and promote equality in physical activity and sports. On an international level, UNESCO has emphasized the importance of developing inclusive policies for quality physical education to ensure equitable access to physical activity for all students [25]. Furthermore, recent bibliometric studies highlight the increasing academic focus on inclusive education and physical activity, reinforcing the relevance of these initiatives in educational research and practice [26]. Inclusive physical education models that foster awareness and adaptation to students' diverse needs have also been emphasized as crucial elements for an equitable and socially responsible curriculum [27]. These initiatives reflect a growing commitment to transforming physical education into a discipline that not only develops physical skills but also contributes to students' personal and social growth, preparing them for respectful and equitable coexistence in today's society. In view of these considerations, given the need to evolve towards a modern and quality physical education, the objective of this proposal is to offer a new model of inclusive individualization of learning, based on the new conception of the human being, to overcome the previous paradigm, in which the students had to adapt to the tasks. This inclusive model of individualized learning in physical education adapts activities to the needs and abilities of each student, leveraging diversity to enrich the educational process. Flexible programs are designed to offer multiple options for participation, representation, and expression, promoting cooperative methodologies to foster interaction and collaboration.

This study employs a multi-method approach combining policy analysis with empirical research to assess inclusion in physical education in Spain. The theoretical framework is based on the Universal Design for Learning (UDL), applied to diverse educational contexts [28]. A Delphi method with expert panels is used to evaluate inclusive policies, complemented by the Lieberman-Brian Inclusion Rating Scale for Physical Education (LIRSPE) to measure inclusion levels [29]. Additionally, empirical data from the National Statistics Institute and European reports on students with special educational needs are analyzed.

To overcome methodological limitations, qualitative data from semi-structured interviews with physical education teachers and quantitative data on student participation and achievement in inclusive programs are collected. The combination of policy analysis, expert evaluation, empirical data, and teacher perspectives provides

a comprehensive view of inclusive physical education and the extent to which UDL principles are implemented, strengthening the study's validity.

In this contribution, we intend to establish a previous step to all this taxonomy and ways of transmitting and acquiring knowledge and competences in physical education. Thus, it is necessary to ask ourselves before dealing with the models: What physical education do we want?

2. Context of disabilities in Spain

2.1. Legal framework for people with disabilities

The *International Convention on the Rights of Persons with Disabilities*, in 2006, to which Spain acceded in 2008, as shown in the *Instrument of Ratification of the Convention on the Rights of Persons with Disabilities, made in New York on 13 December 2006*, of 21 April 2008, attends and protects the human rights of the United Nations and promotes, protects and guarantees the full enjoyment of the human rights of persons with disabilities and guarantees equality before the law [30,31]. Further information can be found at: http://www.convenciondiscapacidad.es/.

In this line of favoring inclusion, the *General Law on the Rights of Persons with Disabilities and their Social Inclusion* of 2013 stands out in Spain [32]. In addition, different regulations have also been published in different areas (**Table 1**).

Table 1. List of the most important regulations ordered according to their typology. The year of publication and the regulation are detailed.

Year	Regulations	Thematic
2024	Reform of Article 49 of the Spanish Constitution, 15 February 2024.	General
2023	Royal Decree 370/2023, of May 16, amending Royal Decree 1851/2009, of 4 December 2009, which implements Article 161.bis of the General Social Security Law as regards the early retirement of workers with a degree of disability equal to or greater than 45%.	General
2022	Royal Decree 888/2022, of 18 October, establishing the procedure for the recognition, declaration and qualification of the degree of disability.	General
2013	Royal Legislative Decree 1/2013, of 29 November 2013, approving the Consolidated Text of the General Law on the Rights of Persons with Disabilities and their Social Inclusion.	General
2011	Law 26/2011, of 1 August 2011, on regulatory adaptation to the International Convention on the Rights of Persons with Disabilities.	General
2011	Royal Decree 1276/2011, of 16 September 2011, on regulatory adaptation to the International Convention on the Rights of Persons with Disabilities.	General
2006	Royal Decree 1417/2006, of 1 December 2006, establishing the arbitration system for the resolution of complaints and claims regarding equal opportunities, non-discrimination and accessibility due to disability.	General
2023	Law 11/2023, of 8 May, on the transposition of European Union Directives on the accessibility of certain products and services, migration of highly qualified persons, taxation and digitalization of notarial and registry proceedings; and amending Law 12/2011, of 27 May, on civil liability for nuclear damage or damage caused by radioactive materials.	Access to and use of goods and services
2023	Royal Decree 193/2023, of 21 March, regulating the basic conditions of accessibility and non-discrimination of people with disabilities for the access and use of goods and services available to the public.	Access and use of goods and services

Table 1. (*Continued*).

Year	Regulations	Thematic
2021	Law 8/2021, of 2 June, which reforms civil and procedural legislation to support persons with disabilities in the exercise of their legal capacity.	Access to justice
2018	Royal Decree 1112/2018, of 7 September, on accessibility of public sector websites and applications for mobile devices.	Communication and new technologies
2007	Law 27/2007, of 23 October 2007, which recognizes Spanish sign languages and regulates the means of support for oral communication of deaf, hearing impaired and deaf-blind people.	Communication and new technologies
2007	Royal Decree 1494/2007, of 12 November 2007, approving the Regulation on the basic conditions for the access of people with disabilities to technologies, products and services related to the information society and social media.	Communication and new technologies
2021	Order TMA/851/2021, of 23 July, developing the technical document of basic conditions of accessibility and non-discrimination for the access and use of urbanized public spaces.	Accessibility in the urban environment and buildings
2010	Royal Decree 173/2010, of 19 February 2010, amending the Technical Building Code, approved by Royal Decree 314/2006, of 17 March 2006, on accessibility and non-discrimination of people with disabilities.	Accessibility in the urban environment and buildings
2007	Royal Decree 505/2007, of 20 April 2007, approving the basic conditions of accessibility and non-discrimination for people with disabilities for access to and use of urbanized public spaces and buildings.	Accessibility in the urban environment and buildings
2007	Royal Decree 1544/2007, of 23 November 2007, regulating the basic conditions of accessibility and non-discrimination for the access and use of transport modes for people with disabilities.	Accessibility in transport
2008	Order PRE/446/2008, of 20 February 2008, determining the technical specifications and characteristics of the conditions and criteria for accessibility and non-discrimination established in Royal Decree 366/2007, of 16 March 2007.	Relations with the General State Administration
2007	Royal Decree 366/2007, of 16 March 2007, establishing the conditions of accessibility and non-discrimination for people with disabilities in their relations with the General State Administration.	Relations with the General State Administration

Source: Own elaboration based on regulations on disability [33].

It can be seen that there are several orders, decrees and laws to strengthen a more egalitarian world. These include general regulations, access to goods and services, access to justice, communication and new technologies, accessibility in the urban environment and building, accessibility to transportation, and relations with the General State Administration. These are, therefore, small steps that address this group and help society progress towards a better, more egalitarian world in this area.

2.2. The legal framework in education: Europe and Spain

However, Europe also proposes a model of action for people with disabilities. Thus, the *Agency for Special Needs and Inclusive Education* reflects on these groups and the education system. The aim is to expand and improve the quality of learning support. Its analysis and recommendations have been evolving for more than 20 years. In the *Key Principles of Special Needs Education* [34], recommendations were made regarding the inclusion of students with special educational needs in regular schools. Subsequently, in the *Recommendations to policy makers* and *Policy Guidelines on Inclusion in Education* [35,36], while also proposing suggestions for students with special educational needs themselves, the focus was also placed on policy makers and their sphere of influence and sensitivity with the idea of increasing participation. Public policy, therefore, was gaining momentum. Subsequently, the Agency developed the *Fundamental Principles for Promoting Quality Inclusive Education.*

Recommendations for implementation [37]. The aim was to address solutions from higher and more political spheres to more concrete proposals. The need to have competent teachers, to take into account the participation and opinions of the students themselves, to value the importance of the leadership of the management team and to focus on guidance and support services was emphasized. And in 2021, the theme was further developed and deepened, and it was proposed to focus on "the development of policies and their implementation according to a broader vision of inclusion" [38]. The aim was to reach the different levels of the system, prioritizing the school level and promoting an active character in the Agency towards more meaningful inclusive education policies [39].

It is essential for the *European Agency* "to support countries wishing to review key policy issues, to further develop their educational inclusion services and, in particular, to bridge the gap between policy and practice". Thus, the aim is to promote inclusive education in the broad sense that encompasses, in addition to policy, school organization, curriculum, assessment, pedagogy and school support. It is thus proposed that special education is a part of regular education and is beneficial for all students [40]. In this sense, flexibility is essential. States must have economic and financial flexibility, with an emphasis on giving more autonomy to each educational center. But also, the pedagogical and evaluative process will have to propose flexible models so that all students have the same opportunities regardless of their country of residence, economic level, disability, language or sexual orientation [41,42]. All this became even stronger when we saw the inequalities that increased with COVID-19 [43,44]. In short, effective educational change requires recognition that policy implementation is as important as the design itself [45].

Table 2. List of current texts published in the official journal of the European communities (OJEC), related to inclusive education.

Thematic	Description	TWELVE
Inclusion in diversity	Conclusions of the Council and of the Representatives of the Governments of the Member States, meeting within the Council, on Inclusion in Diversity to Achieve High Quality Education for All.	OJEC 2017-02-25
Essential role of lifelong learning	Council conclusions on the essential role of lifelong learning in empowering societies to cope with the technological and ecological transition by supporting inclusive and sustainable growth.	TWELVE 2019-11-18
Lifelong learning for the ecological transition	Council conclusions on the essential role of lifelong learning in empowering societies to cope with the technological and ecological transition in support of inclusive and sustainable growth.	TWELVE 2019-11-18
Equity and inclusion in education	Council conclusions on equity and inclusion in education and training to promote educational success for all.	TWELVE 2021-06-10
Promotion of common values, inclusive education, European education.	Council Recommendation of 22 May 2018 on promoting common values, inclusive education and the European dimension in education.	OJEC 2018-06-07
Blended learning for inclusive education.	Commission Staff Working Document accompanying the document Proposal for a Council Recommendation on blended learning for inclusive and high quality primary and secondary education.	OJEC 2021-08-05
Blended learning for inclusive education	Council Recommendation of 29 November 2021 on blended learning approaches to achieve inclusive and high quality primary and secondary education.	OJEC 2021-12-14

Source: Own elaboration based on European indications.

Entering the legal framework and the educational field, in Europe, inclusion and care for people with disabilities are regulated by the *Official Journal of the European Communities* (OJEC). Different texts are currently in force that countries must take into account to promote this equality. Specifically, in this case, there are several documents that deal with educational inclusion (**Table 2**).

All this gives indications to the different countries on the public policies and standards to be developed. In line with international recommendations, in the Spanish educational field, in early childhood education, the reference regulation is the *Real Decreto 95/2022*. In primary and secondary education, the current law is the *Organic Law 2/2006 on Education* (LOE) amended by the *Law 3/2020* (LOMLOE). This regulates the teaching of compulsory secondary education (ESO), basic vocational training (FP), baccalaureate and intermediate vocational training (FP). And higher education is regulated by *Organic Law 2/2023 of the University System* (LOSU), which defines the target groups and the economic, organizational and specific support measures for students requiring attention to diversity.

The legislation is sensitive to inclusive education and is aligned with the Sustainable Development Goals (SDGs) of the 2030 Agenda to the extent of ensuring inclusive, equitable and quality education and promoting lifelong learning opportunities for all. It also addresses aspects related to the UN Convention on the Rights of Persons with Disabilities.

For education for inclusion, Article 71 of the *Organic Law 2/2006 on Education* (LOE), which refers to Title 2 related to Equity in Education and its first chapter that deals with students with specific educational support needs, already details that the necessary means must be available for any student to achieve their maximum personal, intellectual, social and emotional development. And the public administrations will be responsible for offering the necessary resources to achieve this, in those students who require different attention from ordinary education. In this case, the detection of needs will be key and the Administration has to offer the necessary resources and procedures, as well as provide good follow-up and attention to family members. This Article 71 of the LOE also defines the following groups of attention different from the ordinary one (**Figure 1**): Students with special educational needs, i.e., with disabilities or severe behavioral, communication and language disorders, students with developmental delay, students with developmental disorders of language and communication, students with attention or learning disorders, students with a severe lack of knowledge of the language of learning, students who are in a situation of socio-educational vulnerability, students with high intellectual abilities, students who have entered the educational system late, students with peculiar personal conditions or school history.

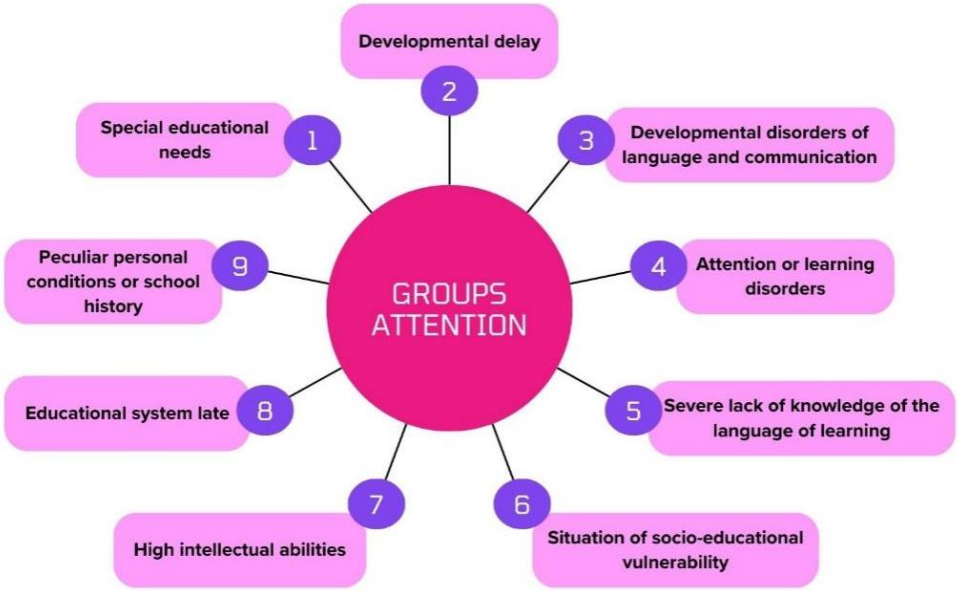

Figure 1. Groups according to LOE article 71.

All these particularities are specified in Articles 71–79. Thus, according to Article 72, the Administrations are responsible for ensuring that there are teachers of the corresponding specialties and qualified professionals, as well as the pertinent means, materials and resources. Likewise, the centers must have the proper school organization and offer the optimal curricular adaptations and diversifications for the students. Aligned with international best practices, the training of teachers and other professionals in the field in question must be promoted by these Administrations. And finally, collaboration offers between different entities, whether public or private, will be key in order to facilitate this schooling and the adaptation of the students to the educational center.

All this, and following the *Organic Law 2/2006 of Education*, is related to the different plans of attention to diversity that may require ordinary or extraordinary measures. The former do not imply curricular prescriptive changes; the latter do. For the measures of attention to diversity of an ordinary nature, adaptations of access to the curriculum are proposed so that students with certain accessibility difficulties can follow the ordinary curriculum; the heterogeneous organization of groups of students; the universal design of learning which promotes accessibility and in line with international standards, ensures full and active participation of students in learning (access to spaces, curriculum and resources, welcoming activities, promotion of actions aimed at socializing students and valuing diversity; organization of support and reinforcement activities; prevention of absenteeism and early school leaving); tutorial and guidance action; the use of spaces; coordination and joint work between the different professionals and collaborators in the school and in the classrooms; the participation of external agents in socio-educational actions; the orientation, training and family mediation actions that favor the approach of families to the centers, make possible their involvement in the educational process of their children and, if necessary, their integration in the social context (For further information, please consult the European Commission's Eurydice site: https://eurydice.eacea.ec.europa.eu/en/national-education-systems/spain/espana). Among the inclusive

measures, one of the key approaches is the Universal Design for Learning (UDL), which is in line with international recommendations and promotes accessibility, allowing a wide range of students to engage meaningfully in their learning.

2.3. Statistics, research findings and inclusive educational methodologies

According to the Spanish National Statistics Institute (INE), Spain has seen improvements in school enrollment and graduation rates in recent years. However, disparities persist in access to and quality of education for students with special educational needs (SEN). For instance, in the 2022 academic year, 75.6% of adolescents in lower secondary education achieved at least a minimum level of reading proficiency [46]. Additionally, the participation rate of young people and adults in education and training programs over the past 12 months highlights the ongoing need to promote lifelong learning opportunities for all. At the European level, Spain is among the countries with the most measures aimed at fostering diversity and inclusion in schools. However, approximately 65% of children with disabilities in Europe are enrolled in mainstream schools, with significant differences between countries regarding access to adapted resources and support.

Internationally, UNESCO's Global Education Monitoring Report 2020 indicates that approximately 25% of teachers worldwide reported a significant need for professional development to teach students with special needs. This underscores the importance of inclusive policies and teacher training to address the diverse needs of students. Peinado et al. [47] highlight that teacher training in the inclusion area remains limited, yet when introduced to UDL, educators can design more inclusive learning situations and reflect on their role in educational diversity. Furthermore, assistive technologies and the development of new digital learning environments have been examined in relation to educational inclusion. A recent study by Yenduri et al. [48] highlights how the metaverse and other emerging technologies can facilitate access to higher education for students with specific learning difficulties. Letaw et al. [49] investigated the integration of UDL in computer science degree programs, concluding that applying this model to technical training can contribute to a more inclusive approach in traditionally less diverse disciplines. Additionally, it has been found that combining UDL with methodologies such as cooperative learning enhances inclusion, promoting both academic development and social interaction among students [50].

Several additional studies further emphasize UDL's role in fostering educational inclusion. Roski et al. [51] conducted an experimental study investigating the effects of UDL in inclusive science classrooms. Their findings suggest that while UDL-based environments can enhance learning, careful adoption and structured implementation are essential for effectively supporting diverse learners. Another study by Galkienė and Monkevičienė [52] analyzed how UDL stimulates inclusive education processes across different cultural contexts, concluding that implementing UDL strategies fosters a more inclusive learning environment that benefits all students. In the context of online learning, Ismailov and Chiu [53] examined how UDL-based instructional design addresses inclusion and diversity in asynchronous courses, finding that such designs improve learner engagement and accommodate students across diverse academic and demographic backgrounds. Lastly, Rossi [54] explored the future of

inclusive teaching through UDL, emphasizing the necessity of flexible teaching strategies that meet the needs of all learners and promote equitable educational outcomes.

In recent years, several methodologies have emerged to foster inclusion and diversity in education. Among them, the learning stations method (REAPSES) allows students to work in different classroom spaces according to their interests and needs, promoting a more personalized learning experience. This approach facilitates student-centered learning, accommodating diverse learning paces and styles. Another important methodology is action research, which engages educators in an ongoing process of reflection and improvement of their teaching practices. Through this method, teachers identify classroom challenges, implement solutions, and assess results to refine their pedagogical strategies. The REAPSES method (Learning Stations for Learning Styles in Meaningful Educational Processes) has also been implemented as a strategy to restructure educational spaces at no additional cost, with significant pedagogical impact. This method creates learning stations within the classroom, adapted to different student learning styles, thus fostering a more meaningful and personalized learning experience [55].

Additionally, service-learning combines educational processes with community service, allowing students to apply their knowledge in real-world situations that benefit their surroundings. This methodology not only reinforces academic content but also cultivates values such as solidarity and social responsibility.

These methodologies have transformed the teaching-learning process by making students active participants and personalizing education to promote inclusive strategies that enhance individual qualities and interests [56,57]. In this context, the teacher's role is crucial in guiding students and providing personalized learning experiences.

The analyzed studies collectively highlight the significance of UDL as a tool for promoting educational inclusion. Adequate teacher training in UDL principles is essential for identifying and eliminating learning barriers, allowing for the adaptation of materials and methodologies to cater to student diversity. Moreover, integrating assistive technologies and participatory methodologies enriches the educational experience, facilitating more equitable participation for all students. However, statistical data reveal that despite progress, inequalities persist in the effective implementation of inclusive practices. This underscores the need for continued efforts in teacher training, adaptation of educational environments, and raising awareness within the educational community to ensure truly inclusive education.

These new methodologies serve as facilitators of inclusion and are already contributing to the advancement of a more equal society. They promote the universality of learning by ensuring that education is accessible to everyone, regardless of their physical, psychological, social, or emotional characteristics.

3. Methodology

This study employs a mixed-method approach, combining policy analysis, empirical research, and expert evaluation through the Delphi method to assess inclusive physical education. The research follows an exploratory design, integrating

both qualitative and quantitative perspectives to provide a comprehensive understanding of inclusive methodologies and their alignment with the Universal Design for Learning (UDL) framework. The study includes a systematic review of legal frameworks, educational policies, and academic literature, selecting sources based on their relevance, scientific rigor, and regulatory significance. Key documents analyzed include Spanish national laws on education (LOE, LOMLOE), European Commission reports on inclusive policies, and UNESCO's Sustainable Development Goals (SDGs). Selection criteria prioritized peer-reviewed articles from indexed journals published between 2010 and 2024, while outdated studies and those with insufficient empirical validation were excluded.

In addition to policy analysis, the study incorporates expert evaluation through a Delphi panel consisting of 10 specialists in inclusive education, physical education didactics, and public policy. Experts were selected based on their academic background, publication record, and practical experience in education and policymaking. The Delphi method was conducted in two rounds, with the first involving open-ended questionnaires on the feasibility of UDL in physical education, and the second refining responses through expert consensus. To complement expert insights, quantitative data from national and European sources were analyzed. The study employs the Lieberman-Brian Inclusion Rating Scale for Physical Education (LIRSPE) to measure inclusion levels in physical education settings, alongside the Student Adapted Development (SAD) Model to assess its compatibility with inclusive education principles. Statistical data from the Spanish National Statistics Institute and European Commission reports on students with special educational needs (SEN) provide additional empirical evidence.

For data analysis, qualitative content analysis was conducted on policy documents and Delphi responses to identify common themes regarding inclusive methodologies. Descriptive statistics were applied to national and European datasets to examine trends in school inclusion rates. A comparative analysis assessed variations in inclusive policies across different EU countries. Findings were cross-validated through triangulation, integrating policy review, expert insights, and empirical data, ensuring methodological rigor and reliability. This structured approach allows for a well-rounded assessment of how inclusive education principles, particularly UDL, are implemented in physical education. The study highlights the strengths, limitations, and potential improvements needed in teacher training, educational policies, and resource allocation to foster a more inclusive learning environment.

4. Data analysis

4.1. Didactic styles and methods for teaching: Ideals for a new paradigm

The study of didactics has been dealt with by various specialists who have contributed their points of view. The objective was clear: To improve the teaching and learning process in the students, either with the acquisition of knowledge, technique, or by improving the classroom climate. If in a more taxonomic idea Bloom [58] or Harrow [59] stand out, in a more applied field of physical education Parlebas [60], Bañuelos [61], Famose [62], Maurice Piéron [63] or more recently Blázquez [64] appear. They were, and are, referents for teachers, professors and researchers in the

field of pedagogy, physical education and sport. Likewise, we must also highlight other proposals that focus attention on teaching styles, a part of didactics, such as Mosston, Asworth, and other successors who, by way of simplification, organized these styles into two groups: Reproductive and productive [65–67].

In these proposals, the models that foster autonomy and creativity, adapting them to the current pedagogical model, are those that allow to a greater extent to meet the expectations of physical education. Thus, looking at Mosston and Asworth, guided discovery, problem solving, the individualized program, the style for initiated learners and self-teaching would seek that Socratic-Mieutic ideal of knowing oneself and, we could say, learning by oneself. But the problem with these models was, and is, that the tasks often attempted to standardize specific criteria and content that would be adapted to the students based on different methodologies. It is clear that productive styles allow to adapt more and better to the needs of students to learn, but they do not meet the expectations, if the model is not adapted to the vision of this XXI century for learning.

And in the current era, many methodological proposals have also appeared. Some of them start from already existing methodologies, such as project-based learning, work by centers of interest, learning by competencies or gamified proposals [68,69]. Other methodological ideas seek to relate (physical) education and new advances, inventions or technology. These would be proposals based on e-learning, e-sports, or the use of apps [70–72]. Often these models combine to create new forms of education. But the fact is that whatever the experience offered to the students, if there is no end to (physical) education and teaching, these methodologies and styles are worthless. Some of the ideas of critical pedagogy already highlight this essential issue and seek to recover the educational memory of quality, promote a culture of peace, an education for equality or participation of all human beings regardless of race, sex or abilities (**Figure 2**). A question to explore and to exploit is that concerning the Sustainable Development Goals (SDGs) of the 2030 Agenda proposed by the UNESCO organization. These could be a starting point to set the direction of (physical) education, not only in terms of quality education—SDG 4—but also to meet the challenges for a better world.

Figure 2. The sustainable development goals can be a starting point for new didactic and methodological proposals in physical education.

Source: UNESCO [17,18].

Therefore, the 17 objectives (**Table 3**) could be a way to start dealing with physical education from some of the perspectives proposed, without excluding the contributions of each teaching figure, which are key elements for any teaching and learning process [73].

Table 3. The sustainable development goals proposed by UNESCO in the 2030 Agenda.

N.	ODS	N.	ODS
1	End of poverty	10	Reducing inequalities
2	Zero hunger	11	Sustainable cities and communities
3	Health and wellness	12	Responsible production and consumption
4	Quality Education	13	Climate action
5	Gender equality	14	Underwater life
6	Clean water and sanitation	15	Life of terrestrial ecosystems
7	Affordable and clean energy	16	Peace, justice and strong institutions
8	Decent work and economic growth	17	Alliances to achieve objectives
9	Industry, innovation and infrastructure		

Source: United Nations Educational, Scientific and Cultural Organization [17,18].

Thus, one would have to answer the question Where is (physical) education heading [74].

Therefore, it is necessary to contextualize these styles and those proposed by various pedagogues in the new educational, pedagogical and social framework. They were ideals that preceded the various methodologies that could later be prioritized. Thus, before looking for methodologies, debating the best style for learning physical education, or reflecting on the role of students, it is necessary to reflect and ask ourselves what should be the purpose of education and physical education for these new times. It is, therefore, a question to take into account and offer a model of critical pedagogy and meaningful education [75]. Therefore, before methodologizing physical education, one must first reflect on its core purpose. Once this question has been resolved, and only in this case, it will be possible to offer pertinent and rational methodologies that give meaning to (physical) education and to the teacher.

4.2. A new way of understanding physical education: Individuality as normality

Thus, a new learning culture requires a human development adapted to each subject and that takes into account the varieties in the different dimensions [76]. Inheritance, but also experiences and learning will shape and form the personality and the way of acting and being. For all these reasons, learning cannot be globalized.

The role of the educator, therefore, is to analyze these differences, as each educational experience tailored to a specific learner acknowledges their uniqueness and individuality. In this regard, every person, regardless of their abilities and skills, constructs their learning based on individuality, autonomy, socialization, and creativity. In this way, it is proven that a modern physical education must take into account each and every learner.

This ideal is further reinforced by the Sustainable Development Goal of the 2030 Agenda which aims to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all", and with a clear idea of "providing everyone with access to education, training and the full development of their potential" [77].

Thus, in order to effectively engage in the teaching and learning process, it is also necessary to know the students. It is obvious that there are factors that we will not get to know, but we will have to have a general idea of the characteristics that make each human being unique. Likewise, when elaborating and organizing tasks and sessions, all these ideas about the students and their peculiarities must be taken into account. One of the big mistakes of traditional pedagogy is not knowing, or not knowing enough, the students [78,79].

Thus, the traditional model of physical education, based on batteries and physical condition tests, which often come from the field of training, became part of the day-to-day physical education classes and have become obsolete due to this new conception of education. Therefore, the individual is understood from a holistic, global vision. It is not possible, therefore, to understand the student as an individual with specific physical qualities, since the complexity of the human being is much greater. Thus, the way of relating to the group, the ability to solve problems, autonomy, or the ability to solve emotional challenges are elements that must also be taken into account [80,81].

Knowledge as a consequence must be progressive in time and global, that is, it has to be understood and fixed with the maximum significant factors of the individual, during the whole duration of the planning or intervention. Therefore, a good teacher is one who complies with this progressive and global knowledge. But at the same time, we must see the various shortcomings and difficulties as something normal. And all this aspect is related to the whole competency model that understands the individual as one who must put knowledge and skills into practice in different situations, seek strategies for learning, reflect on them and provide solutions [82–85]. In addition, the society of the 21st century, technological and with constant changes, asks for models that allow everyone to deal with problems that will appear during life and that are unknown until now. Valid learning must be acquired to solve these situations. Only in this way can learning be permanent [86]. Therefore, techniques, although valid and current, would lose importance and individualization should be understood in this context. Thus, it will be necessary, within the sessions, to think about these future challenges and propose optimal situations. Transversal or key skills such as autonomy, decision-making or group work would be elements to take into account [87–89].

Thus, understanding the complexity of each individual, with all their characteristics and capabilities, is a complex task, aggravated by external factors such as the low teaching load in the field of physical education, high student ratios, the amount of teacher hours in bureaucratic tasks—as exposed by the Organization for Economic Cooperation and Development [90], or simply the prejudices that as teachers could have of a typology of students and that distorted reality. The question to develop, taking into account this analysis of the individual, is to discover what we can know and what are the key characteristics to know about the learners. And in the motor field this question becomes even more complex because of the little motor skills developed in a world that is eminently sedentary. Riera has already dealt with these

elements. Thus, along with genetically determined factors such as height, weight and heart size, there are also motivations and interests, often influenced by society, new technologies, the media and new models of virtual relationships, among other aspects. In this sense, previous experience or social class would also be key elements as Bourdieu or Foucault would say, and would already indicate a development of some skills in relation to others, and a type of reproductive model that the consumer society promotes [91–94].

Additionally, other factors related to students must be addressed would be determined by the interaction with the group-class or with the subgroups that could be organized in each teaching and learning situation. It is evident that attending to the principle of individuality only, the error of not including the class group would appear, and vice versa, attending to the group would not be able to treat the student body with its peculiarities. Thus, the duality of the individual and the group, and offering strategies such as proposing situations, responses and stimuli that adapt to both aspects, is key. And seek a balance between individual and group activities; offer activities in small groups; encourage tasks in pairs; or offer group activities, but that are sufficiently broad and adapted in rules and space to meet individualities, are elements to solve the dichotomy between the individual and the group, and that already the pedagogues of the early twentieth century dealt with [95]. The individual and the group must complement each other, being necessary a balance between all and with all the typology of tasks. The teaching figure will have the task of adding efforts and not subtracting them as often happens in group work.

Thus, there will be a methodology for everyone that, without shying away from contents, pedagogical, didactic and social ideals, alternates groupings, types of tasks or different communicative resources. In short, it is necessary to promote, as far as possible, a proposal that includes everyone and the Universal Design for Learning can be the beginning of this path [96].

4.3. Universal design for learning in physical education

An analysis of the educational proposal of the Universal Design for Learning was carried out. It demonstrates that human beings are diverse and that education is a recognized right in the society of the 21st century. The challenge lies in educating everyone while considering individuality within a model where the teacher, trainer and facilitator must intervene, often alone in a group-class.

The concept of Universal Design for Learning, with its origin in the world of architecture, a concept extended from Ronald Mace, and with the idea of eliminating barriers and allowing accessibility and use of spaces without adaptation for all, appears as a way to make teaching more flexible. It seeks to treat the whole group-class and the collective, but at the same time take into account all diversity. It is a model, therefore, individualized for each learner and that usually happens in the same space and time for the whole collectivity of learners. This would be an added difficulty and a fact that differentiates it from traditional pedagogies, which isolated and excluded individuals with sub-optimal performance, or distributed them by level groups.

In an ideal Universal Learning Design model, it would be possible to act, intervene and design proposals for the group-class without making any type of

adaptation. Evidently, this would be a difficult, and sometimes impossible, milestone to reach, although this ideal objective should be kept as a horizon. In this sense, a pedagogical-motor model as open as possible would be proposed so that any student, or as many as possible, could be included and be autonomous in the proposals offered. Therefore, it seems optimal to reinforce the methodologies that would give autonomy to the students and would allow them to develop their soft skills or key abilities: They would become basic for a good development of the model. Along these lines, specific adaptations for cases of significant attention, although necessary, should be reduced to a minimum, since the initial proposal itself should include the maximum practitioners. This fact makes it no longer essential to think primarily about a technique to be taught, a specific strategy to be developed and physical and coordinative tests to be passed, although it is not necessary to exclude this either. Now it would be the student who would develop his learning, from the multitude of resources that would be offered.

Teaching tasks, skills and abilities will be key to making this new paradigm take shape, and become valid and of high quality. In this idea, the teacher must analyze the diverse capacities of all and see the deficiencies as a simple normality that will have to be treated to acquire greater competence in all areas: physical, social, cultural or moral. And the group-class would remain in the background, since teaching would always be adapted to each individuality.

With the idea that everyone could develop as the unique being that he or she is, the CAST organization developed and expanded the Universal Design for Learning model [97]. It proposed three ideas related to this interaction between the learner, the student, the child and the elements that involved him/her (teacher, task, material…) in the process of learning. Thus, from a neuroscientific point of view, and also criticizable from different points of view [98], it was intended to offer students three ways to contact the environment, the teacher, the task and the material. Firstly, from the affective networks: Presenting different resources to encourage interest and motivation for learning, to maintain effort, persistence and perseverance. In this way, students' motivation and initiative could be achieved. Subsequently, from the recognition networks: Offering the information from different channels, media and ways of perceiving the data. Thus, students would have several resources to be informed and receive the information provided. And finally, from the strategic networks: Enhancing various forms of action, manipulation, experimentation and expression. Thus, the learner would acquire strategies to develop his or her objectives (**Table 4**).

Table 4. Typology of networks, with their procedure and purpose within the universal design for learning (UDL) model.

Network typology	Procedure	End
Affective	presenting various resources to foster interest and motivation for learning, to maintain effort, persistence and constancy	To achieve student motivation and initiative
Recognition	offering information through various channels, media and ways of perceiving data	Offer students resources to be informed and receive the information provided.
Strategies	empowering diverse forms of action, manipulation, experimentation and expression.	Acquisition of strategies to develop their objectives

Source: Own elaboration based on CAST [97].

In the field of physical education, the Universal Design for Learning may represent an advance in this inclusive model that would adapt to the needs of each individual. The LIRSPE ladder, with 28 indicators that would analyze aspects from the beginning to the end of a class, can be a good model to know if physical education teaching meets these ideals. In any case, as the authors commented, success in passing the ladder would not guarantee that a class meets the inclusion criterion, since there would be elements not addressed, such as the way of relating with classmates or with the teaching staff. But be that as it may, it is an indicator of a model of intentions toward physical education for all [99].

Thus, a new individualized physical education to the whole student body is not only possible, but should be necessary. Open tasks, offering a diversity of resources for the acquisition of knowledge, using slower or adaptable mobiles according to the abilities of the subjects or varying the spatial dimensions were only examples of this paradigm shift and would be related to the indications of the 2030 Agenda and to a quality education for all. And along with this aspect, a critical physical education is also necessary and it is the teacher, with his interests, motivations and skills, the main promoter of this proposal [100–102].

The implementation of Universal Design for Learning (UDL) in Physical Education has been the subject of research in various educational contexts to determine its feasibility and effectiveness. In this regard, recent studies have provided empirical evidence supporting the application of this model in diverse educational settings. A study conducted by López-Ibáñez et al. analyzed the effectiveness of UDL in Physical Education through an intervention involving ICT and active methodologies, finding that students with special educational needs showed significant improvements in their participation and autonomy in physical activities. Similarly, research by Blavt [103] highlights how the individualization of the educational process within the UDL framework contributes to the effective inclusion of students with disabilities in Physical Education. The study, based on a qualitative and quantitative approach, indicates that adapting the physical and methodological environment to each student's needs reduces barriers to participation. At an international level, Galkienė and Monkevičienė explored how the application of UDL in different cultural contexts enhances inclusive education. Their findings suggest that UDL principles help overcome traditional teaching limitations and promote more personalized and effective learning. Another study by Roski et al. conducted an experimental investigation on the effectiveness of UDL in inclusive science classrooms, providing empirical evidence that a flexible educational design improves learning outcomes, especially in settings with functional diversity. Finally, Ismailov and Chiu examined how UDL-based instructional design can improve inclusion and diversity in online courses. Their findings indicate that this methodology increases student engagement and facilitates personalized teaching tailored to each learner's needs.

McLennan highlights that quality policies in inclusive physical education, based on UDL, contribute to reducing access and participation barriers for students with disabilities. In this line, Peinado et al. have analyzed how teacher training in inclusive methodologies enhances the application of UDL in classrooms, enabling educators to develop more flexible and accessible learning strategies. On the other hand, Mendoza

explores the combination of UDL with cooperative learning, demonstrating that this approach fosters both academic development and social interaction among students. Additionally, studies such as that of Letaw et al. have investigated the impact of UDL in higher education programs, highlighting that this model increases diversity and participation in traditionally less accessible disciplines. In the field of technology applied to inclusive education, Yenduri et al. have studied how emerging technologies, such as the metaverse and virtual reality applications, can facilitate access to education for students with learning difficulties, aligning with UDL principles. Similarly, Castellanos has proposed the "Learning Stations" method as a strategy to reorganize learning spaces according to students' styles and needs, increasing their engagement and autonomy. Finally, Norwich argues that the implementation of UDL requires not only a pedagogical shift but also an adaptation of educational policies to ensure that all students, regardless of their abilities, have access to quality education. These studies demonstrate that the implementation of UDL in Physical Education is not only feasible but also enhances inclusion, participation, and skill development among students. However, for effective application, it is crucial to train teachers in inclusive methodologies and ensure access to appropriate instructional resources and materials adapted to student diversity.

5. Results

The results of the analysis indicate that traditional learning models and educational methodologies do not align with either European or state regulations, nor with the educational paradigm proposed in the 2030 Agenda. These models prioritize the completion of predefined tasks and impose rigid structures that force students to conform to an idealized framework. Such approaches hinder the development of truly inclusive educational environments and fail to accommodate the complexity and individuality of learners. Moreover, a static approach to learning does not adequately respond to the evolving educational landscape, which increasingly demands flexibility and inclusivity.

Conversely, the Universal Design for Learning (UDL) model emerges as a framework that promotes diversity as a fundamental element of education and personal development. UDL considers students as unique individuals with distinct abilities, aptitudes, and needs, which must be addressed in the learning process. The findings emphasize the necessity of making learning processes more flexible and adapting them to each student's skills, interests, and expectations, fostering a more equitable and relevant education for the 21st century. Furthermore, studies indicate that UDL combined with cooperative learning methodologies enhances inclusion by fostering both academic development and social interaction among students.

Statistical findings further highlight the challenges and opportunities of inclusive education. According to the Spanish National Statistics Institute, while school enrollment and graduation rates have improved, disparities persist in access to quality education for students with special educational needs (SEN). In 2022, only 75.6% of lower secondary students achieved a minimum reading proficiency level, signaling the need for tailored educational approaches. At the European level, reports by the European Commission/Eurydice [104] show that Spain is among the countries with

the most measures to foster diversity and inclusion. However, across Europe, only 65% of children with disabilities attend mainstream schools, and access to adapted resources varies significantly between countries.

Internationally, UNESCO's Global Education Monitoring Report notes that 25% of teachers worldwide report a significant need for professional development in teaching students with special needs. This underscores the necessity of ongoing teacher training and inclusive policies to address the needs of diverse learners. Peinado et al. argue that while teacher training in inclusion remains limited, exposure to UDL principles enables educators to design more inclusive learning experiences and reflect on their role in fostering educational diversity.

Despite the theoretical and statistical support for UDL, the absence of pilot implementations or case studies assessing its feasibility in physical education weakens the practical relevance of the conclusions. Existing research highlights the role of assistive technologies and emerging digital learning environments in fostering inclusion. Yenduri et al., for instance, explore how the metaverse and emerging technologies facilitate access to higher education for students with learning difficulties. Similarly, Letaw et al. investigate UDL's integration into computer science degree programs, concluding that its application in technical disciplines fosters greater inclusivity.

Experimental studies on UDL further emphasize the importance of structured implementation. Roski et al. conducted a study in inclusive science classrooms, demonstrating that while UDL improves learning outcomes, careful adoption and systematic structuring are necessary for its success. Galkienė and Monkevičienė examined UDL's impact on inclusive education across cultural contexts, finding that UDL fosters a more inclusive learning environment when appropriately integrated. In online learning, Ismailov and Chiu found that UDL-based instructional design improves learner engagement and enhances inclusion in asynchronous courses.

However, these studies also highlight that without longitudinal research or controlled trials, the practical implications of UDL in physical education remain largely theoretical. Given that the Lieberman-Brian Inclusion Rating Scale for Physical Education (LIRSPE) provides a structured instrument for assessing inclusion levels, future research should explore its application within the context of UDL-driven physical education models.

Inclusive physical education requires a pedagogical shift that acknowledges the diversity of learning needs and interests. The findings suggest that methodologies based on individualization and inclusion not only enhance learning experiences but also contribute to a more equitable society [105–108]. The role of teachers is pivotal in fostering critical and inclusive physical education, emphasizing active participation, cooperative learning, and differentiated instruction.

Moreover, the findings highlight the necessity of ongoing teacher training and resource adaptation, as recent research points to the challenges of implementing UDL in physical education settings. The data support the need for flexible, adaptive, and inclusive teaching models, aligned with international guidelines and UNESCO recommendations.

The statistical and empirical findings collectively highlight UDL as a powerful tool for fostering educational inclusion. However, the absence of empirical trials in

physical education underscores the need for further validation through pilot studies, controlled trials, or longitudinal research. While theoretical frameworks and policy alignments strongly support UDL-driven inclusivity, the practical implementation of these principles remains underexplored.

6. Discussion

This study has sought to reframe the conception of education by emphasizing the need for an inclusive and individualized model that accounts for the diversity of learners. This aligns with recent European and state regulations advocating for an educational shift that prioritizes student needs over rigid, predefined learning structures. While traditional learning styles retain some pedagogical value, their applicability diminishes when student-centered inclusivity becomes the priority. The proposed model, inspired by the principles of Universal Design for Learning (UDL), seeks to replace task-oriented, standardized approaches with adaptive and flexible methodologies that foster autonomy, creativity, and self-directed learning.

One of the study's key contributions is the emphasis on productive learning models that promote student engagement and independence, a principle echoed in previous research on inclusive education. This resonates with Mosston and Ashworth's teaching styles but with a stronger focus on accessibility and inclusion. In this context, the Lieberman–Brian Inclusion Rating Scale for Physical Education (LIRSPE) emerges as a valuable tool for evaluating inclusive teaching practices in physical education. However, despite its potential, further studies are needed to assess its long-term effectiveness in diverse educational settings.

From a practical standpoint, the findings highlight the necessity of systemic changes at multiple levels—legal, administrative, and pedagogical—to make inclusive education a reality. Teacher training is a crucial component, as educators must be equipped with both didactic and emotional competencies to effectively implement inclusive strategies in physical education. Current research underscores the importance of ongoing professional development in inclusive methodologies, particularly in the context of UDL, to bridge the gap between policy and classroom practice.

Moreover, the application of this model in physical education requires investment in resources and infrastructure, as well as a cultural shift in how diversity is perceived in schools. Studies indicate that successful implementation of UDL in physical education settings depends on adaptable lesson structures, the use of assistive technologies, and cooperative learning models. Without these changes, the gap between theoretical frameworks and practical application may persist.

The results align with previous studies on inclusive education that emphasize the need for flexible and differentiated instructional approaches. Research on UDL's impact in higher education further supports the claim that accessibility-focused methodologies enhance learning outcomes across disciplines. In the field of physical education, recent studies confirm that models integrating cooperative learning and student agency contribute significantly to motor and social development.

Nevertheless, some studies raise concerns about the feasibility of full UDL implementation due to institutional constraints. Roski et al. argue that while UDL-

based environments improve inclusivity, the extent of their effectiveness depends on teacher preparedness and institutional support. Additionally, Ismailov and Chiu highlight that digital inclusion strategies within UDL frameworks require significant adaptation to address the needs of students with disabilities in physical education.

7. By way of conclusion

This study has sought to redefine the pedagogical approach to physical education through the lens of inclusivity, aligning with contemporary legal frameworks and the principles of Universal Design for Learning (UDL). The findings confirm that traditional methodological styles, which are often task-centered and rigid in structure, fail to fully consider the diversity of students. Instead of focusing solely on teacher-led instruction or a predetermined student archetype, the proposed approach views students as unique individuals with different abilities, needs, and learning styles.

In the 21st century, and in alignment with the 2030 Agenda for Sustainable Development, diversity must be considered a norm rather than an exception. The implementation of UDL in physical education supports the development of emotional intelligence, soft skills, and adaptive learning strategies, promoting an inclusive educational environment that benefits all students. This shift requires a reformulation of how education, and particularly physical education, is structured, moving away from standardized models toward student-centered approaches.

Despite its potential, the study acknowledges significant challenges in the practical implementation of this model. The lack of adequate human, economic, and training resources poses obstacles to fully achieving inclusivity in physical education. Additionally, concerns must be raised regarding the commercialization of inclusive education models, as large corporations may influence educational policies in ways that prioritize profitability over pedagogical integrity. Similarly, traditional educational models that place full responsibility for learning on students, without structured guidance, must also be critically examined [109].

While this study offers valuable insights into inclusive learning methodologies in physical education, several limitations must be considered. First, the research is primarily theoretical, focusing on policy analysis and pedagogical frameworks rather than direct empirical testing in classroom settings. Future studies should conduct longitudinal research to evaluate the real-world impact of UDL implementation across different school environments and student demographics [110–114].

Second, resource constraints—both financial and administrative—remain a major barrier to inclusive education. The study identifies structural limitations that hinder the full adoption of UDL principles, a concern also noted in European policy reports [115]. Future research should investigate cost-effective, scalable solutions that allow for the integration of inclusive strategies without compromising educational quality.

Finally, teacher training has been highlighted as a key factor in successful implementation, yet this study does not provide a detailed evaluation of existing training programs. Further research should examine how well-prepared educators are to integrate UDL-based methodologies and develop professional development frameworks that ensure ongoing support and adaptation to new teaching paradigms.

This study contributes to the growing body of research advocating for an inclusive, student-centered approach in physical education. By integrating UDL principles, the proposed model aims to transform how diversity is addressed in learning environments, ensuring equitable educational opportunities for all students [116]. However, achieving this vision requires sustained efforts in teacher training, policy implementation, and resource allocation.

Despite the theoretical and policy support for UDL, its practical implementation in physical education presents significant challenges at multiple levels. One major issue is the gap between policy and practice—while international frameworks advocate for inclusivity, many schools lack the necessary infrastructure, resources, and teacher training to apply these principles effectively. Additionally, teacher preparedness remains a concern, as many educators report limited exposure to UDL methodologies during their professional development.

Another challenge lies in the assessment of student progress within UDL-based models. Traditional evaluation systems may not adequately capture the benefits of flexible and adaptive learning strategies, leading to a disconnect between inclusive teaching practices and standardized performance measures. Future research should explore alternative assessment frameworks that align with the core principles of UDL while ensuring educational accountability. Moreover, there is a tension between inclusivity and curricular constraints. Many education systems emphasize rigid curricular goals, which can limit the flexibility required for truly inclusive instruction. Schools often struggle to balance differentiated instruction with mandated learning outcomes, making it difficult to fully embrace UDL principles. Lastly, financial and administrative constraints remain a barrier. While the integration of UDL requires investment in professional development, assistive technologies, and classroom modifications, many schools face budgetary limitations that prevent large-scale adoption. Policymakers must address these funding disparities to ensure that inclusive education is not only an ideal but a practical reality for all students.

Future research should focus on bridging the gap between theory and practice, assessing the long-term viability of inclusive methodologies in diverse educational contexts. Ultimately, this study seeks to answer the fundamental question:

What kind of physical education do we want for the future?

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Notes

[1] See: https://www.mdsocialesa2030.gob.es/agenda2030/index.htm

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