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ADDRESSING INCLUSIVITY AND DIVERSITY IN PHYSICAL EDUCATION CURRICULA: STRATEGIES FOR PROMOTING EQUITY AND ACCESSIBILITY

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Abstract:

Introduction: The proposal for a revamped physical education curriculum in Ecuador represents a significant shift in the education paradigm. This renewal aims to foster an open and flexible approach, allowing for the design of activities that contribute to cognitive development, social interaction, and emotional well-being. This study seeks to identify the key human determining variables influencing the successful implementation of Ecuador's national physical education curriculum.

Methods: A quantitative descriptive methodology was employed for this study. A sample of 612 instructors was collected from nine zonal educational institutes in Ecuador, using simple random sampling techniques. The study focused on examining the influence of various factors on curriculum implementation.

Results: The findings revealed that educational management emerges as the most influential factor in curriculum implementation. Key factors within educational management include infrastructure, authority structures, pedagogical support mechanisms, and the availability of resources and materials. These elements collectively shape the effectiveness of curriculum delivery in physical education.

Conclusion: In conclusion, this study underscores the significance of addressing educational management as a pivotal factor in implementing Ecuador's national physical education curriculum. By enhancing infrastructure, authority structures, pedagogical support, and resource provisions, educators can better realize educational goals in this domain. Ultimately, these improvements have the potential to positively impact the holistic development of students, fostering their cognitive, social, and emotional growth.

Keywords: human determinant, resume, physical education, educational management

INTRODUCTION:

The axiological, social, and cultural order, representing the relational framework of a set of existential dimensions that act as vectors in pedagogical practice to educate the human condition, is fully prioritized in the thematic discussion on implementing curriculum projects in physical education. This constitutes the teleological aim of education since it means adding value to life, and everything is done for oneself and others. As a result, the educational system produces citizens who have a critical conscience, are responsible for themselves as well as for the social and physical reality around them, and can act in a cooperative, supportive, and creative manner to develop an understanding of their own family as well as society as a whole [1].

This situation makes us believe that education in uncertain times ensures the student develops a contextualized understanding of reality. To achieve this, it will be necessary to give the student the complex cognitive, didactic, emotional, and behavioural tools that this global perspective implies. Because of this, it is important to provide him with enough support for his unique and non-transferable worldview. In this way, they remind us that physical education is entwined in a dialogue about knowledge within a globalizing dynamic of knowledge, which promotes rethinking the educational context in all of its dimensions to address the necessary social and cultural, helping to form the student's human condition; themselves which, following the philosophical ideals of transversal pedagogical ethics, allow the subject who learns to continue learning [2].

All of this suggests, in the author's own words, that the ability to learn must be proposed so that the student can think critically to actualize himself as a person and be considered in methodological terms towards the student's academic autonomy. According to what has been said, physical education is designed from a humanistic and personalizing perspective. It is described as "the process of facilitating the authentic development of all that this subject is capable of being," an education that shapes the student to live and to himself. It leads to the discovery that the lessons are truly important and applied in their real context [3].

Regarding the official sphere recognized by educational institutions and the informal sphere, assessing the effort managed in teacher training during its professionalization phase would be fair. As a result, teaching about the human condition within the context of physical education creates an intriguing dialectical conflict between the teacher's descriptive and declarative discourse to address empirical contexts and the world of an argumentative and evaluative language of a humanizing pedagogy, as well as an ecological vision to penetrate and coexist with the axiological ontology of being [4].

The features, traits, aptitudes, talents, and capacities listed as desired for educating a being, which influences his decision-making in his profession, are included in this argument's human determinant of the educator, which also serves as its referents. His training profile was configured and axiologically constructed following the demands of a complex pedagogical mediation to build learning and set the groundwork for a new educational model based on Training in values. The scenario described above intersects with the ethical responsibilities of the teacher, who must attempt to inspire students' learning creatively, as recognized by the United Nations Educational, Scientific, and Cultural Organization [5].

This indicates the need to consider an education that has as its goal furthering intentionality and the dignity of the human being, as this can only be accomplished through the effort to realize existential values, understood as those which help to t. Because of this, the educational system in Ecuador has

been subject to various scenarios regarding how to raise educational standards; as a result, there are plans, programs, and projects infused with modern methods and trends that are sometimes disassociated from the human spirit. The country's normative and legal framework takes into account a person's total Development; as a result, emphasis is placed on respect as well as the full exercise of human dignity; however, there is a clear disconnect between the philosophical approach, a distinction that is being studied from various angles in the interest of various sectors responsible for educational action [6].

This is achieved by promoting curricula, teacher training programs, economic gains, infrastructure development, and endowment for innovative technologies. However, there is a lack of focus on integral Training and the deployment of techniques mirrored in the classroom environment where school management is aligned to satisfy technical-administrative needs while ignoring pedagogical and curricular processes. In light of the current worldwide reality, the prior argument warns against the necessity of responding to the demands that appear before the teacher's activity [7].

Notably, the Ministry of Education has not yet evaluated the outcomes of implementing the national P.E. curriculum. Therefore, it is not certain that upcoming generations will develop a culture of physical activity. Help society adopt a cooperative mindset. On the other hand, it has been shown in Ecuador that teachers still use the same methodological approaches despite being aware of the current P.E. curriculum's proposal and the lack of a procedural agreement for its alignment with the existing national curriculum [8].

According to the classification of teaching methods for physical education, behaviourist and traditionalist performances are seen in the subject area teachers in the same sequence of thought. Defines them as a direct command, where the teacher maintains the organization, explains and models the activity, and the student repeats it precisely; modified direct command, which is similar to the previous one but allows the student to complete the task at his own pace; and task assignment, where the teacher divides the class into groups based on their actual job duties after explaining and modelling the activity [9].

These methodological approaches respond to pedagogical philosophies like sportsmanship, physical prowess, man in motion, and competition. The Ecuadorian educational system should concentrate on the professionalization of teachers for their understanding and implementation of its educational policies, based on a management system that listens to their voices as a mechanism for knowing the truth and identifying those factors that are human determinants for the implementation of the Physical Education curriculum [10].

Based on the above factors, the study sought to determine the human factors influencing the Ecuadorian National Curriculum for Physical Education implementation. To describe and interpret the problem based on reality and comprehend its nature and contributing factors, the methodological process of the investigation was carried out using a quantitative approach at a descriptive level. Using simple random and cluster sampling, 612 teachers from nine of Ecuador's Zonal Coordinations in Education made up the sample (Table 1).

Cable 1: shows a representative sample of Ecuador's physical education instructors.				
Teachers of %	Population	Calculation	Rounding	
Physical Education	total	Sample	Sample	
679	10,614%	63,82	64	
415	6,487%	39,61	40	
851	13,303%	79,79	80	
806	12,599%	75,76	76	
752	11,755%	70,68	71	
579	9,051%	54,42	54	
719	11,239%	67,58	68	
630	9,848%	59,22	59	
966	15,100%	90,80	91	
6397	100%		612	
	Teachers of % Physical Education 679 415 851 806 752 579 719 630 966	Teachers of % Physical EducationPopulation total67910,614%4156,487%85113,303%80612,599%75211,755%5799,051%71911,239%6309,848%96615,100%	Teachers of % Physical EducationPopulation totalCalculation Sample67910,614%63,824156,487%39,6185113,303%79,7980612,599%75,7675211,755%70,685799,051%54,4271911,239%67,586309,848%59,2296615,100%90,80	

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They were subjected to the survey using a trustworthy tool built using the operationalization of the variables and based on dimensions and indicators. The opinions of seven experts validated it. This tool contained fourteen (14) questions, 11 of which were closed and 3 of which were open. Open questions, by their very nature, permitted responders to provide broader information, whereas closed questions had previously specified answer alternatives. The answers were broken down into two groups: open and closed. The open answers underwent quantitative content analysis using a program called Q.D.A. Miner, and the closed answers underwent descriptive and interpretative analysis using SPSS v. 23 with support for this, in absolute and relative frequencies [11].

The essential and emergent factors of the answers, taken as units of analysis (words), were classified and assigned to a core category due to the quantitative analysis of the open questions. The approach will help us comprehend the phenomenon that teachers encounter as they undergo the necessary educational transformation to educate people about their behaviour and efficiently manage their students' abilities, skills, attitudes, and potential in community service [12].

The complexity of the human being and the national curriculum for physical education in Ecuador

Humans have created a realm of information, including scientific and common knowledge. Any circumstance that arises—whether social, educational, economic, or political—requires the participation of all information that is now available; this knowledge rivalry constitutes more than a wisdom problem, a difficult articulation process. In this sense, a complex vision of curriculum management implies a multiverse and multi-referential perspective; to implement the curriculum from the complex is to enter the middle of knowledge and take on the unknown challenge of its fulfilment [13].

It is important to remember that reality is neither simple nor complex as one builds an understanding of it. Our thought is what defines reality. Simple thought will lead to a simple reality. Reality will be complex if our thinking is complex. As a result, the aims and goals of those who oversee education in the nation, the historical context, the material requirements to achieve its efficacy, and the human aspects that will or won't permit progress all influence how the P.E. curriculum is implemented. Because the topics are ultimately what give the curriculum life through their pedagogical practice in this execution [14].

In this way, it is possible to think of the curriculum development process that Ecuador has begun with a pluralistic perspective, one that recognizes the actors who directly participate in it: teachers, managers, students, and families, as well as the various ideas and conceptions of physical education that coexist. Therefore, because its essence is global, transtemporal, and trans-spatial, it enables "to arrange the teaching and learning process transcending sectoral concerns. Because the interest is primarily historical and human, it is not restricted to inert periods or narrow interests [15].

Although the body is also a component of its being, a comprehensive curriculum approach to physical education necessitates a distinct way of thinking that considers being from corporeality, the experience that occurs through movement, and its transcendence, as a mediator between it and reality. Since there cannot be homogeneity among students in terms of their traits, thought processes, performance, and life contexts, physical education is intended to integrate these factors in an ongoing teaching and learning process and in a permanent construction in which both teachers and students are perpetual learners. Betting on an educational curriculum's implementation with a more inclusive vision, as in the case of physical education, entails a change in philosophy and education [16].

In this way, the reform must enable the use of conceptual tools to deal with complexity, and its goal will be to cohabit with uncertainty, unpredictability, and complexity. Since a reduced and simple thought has predominated in the past, changing thinking and education is not an easy undertaking. For this reason, he emphasizes that it is a reform that considers the capacity for knowledge organization or cognition [17].

TEACHER TRAINING: CURRENT PERSPECTIVES

New difficulties occur with introducing the physical education curriculum in Ecuador, starting with teacher preparation of the region and the document's indoctrination for its understanding and use. To decide on the curriculum approach and how to handle the appropriation of the new postulates, it is necessary to assess the professional's Training as a key construct [18].

The many approaches to teacher education are categorized into models. In this regard, they claim that the numerous models are closely tied to the many ways that teaching is represented and the various parts of it, such as how knowledge is interpreted or what an individual's learning notion is. Establishes four perspectives considering the various teacher education models [18, 19].

The scholarly viewpoint

With the mastery of content as a primary goal of teacher preparation and the dissemination of scientific and cultural knowledge as the axis of this orientation, the teacher's function stands out as a specialist in one or more academic areas. According to Salazar, there is no clear distinction between "knowing" and "knowing how to teach" in this perspective, so little weight is placed on both pedagogical Training and "didactic training" of the discipline in teacher preparation. The other approach, which Salazar refers to as comprehensive, views learning as an accumulation of knowledge [20].

The other approach is a comprehensive one that sees the teacher as an intellectual who logically comprehends the subject's structure and who contributes historically and evolutionarily to the processes and alterations of its formation as a discipline created by an academic community, exposing the student to humankind's scientific and cultural advancements [21].

A technical viewpoint

Regardless of the features of the learner in a social setting, the instructor is viewed as a technician who seeks answers so they can practice. In this way, he supports the idea that education is a scientific activity that elevates the technical viewpoint of teaching and views teaching as a direct cause of students' behaviour, i.e., how the teacher behaves will determine how the students behave. The technical approach assumes that if teachers utilize a technique, the results will be concrete and predictable regardless of the technology used. Predetermined learning outcomes would be guaranteed if no other factors could affect the technology's effectiveness [22].

A pragmatic viewpoint

Therefore, depending on the contextualized work with which it is carried out, [23] practical perspective analyzes a potential solution to the issues uncovered by the academic and the technician. The complicated work of instructors frequently encounters scenarios that are challenging to forecast. Two broad models are viable from this perspective. The conventional approach is that teaching is a trade that can only be learned through years of practice; in this sense, Siamo vocation. The practice-reflective paradigm advances teacher preparation in real-world settings, yet all decisions are based on ongoing planning and improvement through formative evaluations [24].

Critical viewpoint

The idea of teaching as a critical activity is emphasized, and the school's role as a component of societal progress is highlighted. Teachers are viewed as autonomous professionals who critically reflect on daily practice to support the autonomous and emancipatory Development of those who participate in the educational process. This includes the teaching task itself and the context in which it occurs [25].

For, a teacher is regarded as a "transforming intellectual," which means that he is both an "educator" and a "political activist," in the sense of openly intervening in the analysis and debate of public affairs to arouse citizens' consciences in the critical analysis of the social order of the community in which

they live. For his part, he emphasizes how they view education as an art in which the concepts are applied deliberately and imaginatively. These concepts have begun [26].

METHODOLOGY:

Human determinant factor in education:

In the social term, determinants are internal and external building blocks in every scenario. They are determinants and impact both good and negative features. A determinant is a factor that precisely determines what a thing can be or do. The biological, physical, emotional, psychological, social, and even spiritual aspects of the human being all play a role in what makes him who he is. Human factors are the actions of individuals in their personal and professional lives, including how they interact with their surroundings, behave, and interact with others [27].

They refer to the individual as a bio-psychosocial system embedded in a work environment and determine and explain how that performance affects itself, i.e., it has to do with the way of functioning and the optimization of a task that influences professional, social, and consequently personal well-being. According to UNESCO, the human element in education determines educational quality [28].

As a result, the teacher:

They are the prerequisite for Teachers, and educators should be given the appropriate assistance, motivation, professional qualifications, and resources within effective, well-managed systems to provide quality education. They should also be empowered and given an adequate recruiting and compensation plan. Teachers play a significant role in the dynamics and quality of education at all levels and modalities, but many other factors affect how it behaves. Among these, it should be noted that, as noted by UNESCO, motivation, pay, and professional credentials are key factors in determining the standard of education [29].

In this regard, the same worldwide committee on education for the 21st century believes that countries must adopt significant measures to improve these areas to improve teachers' quality and motivation. Accordingly, the author highlights the following elements:

- Assume. Expand your hiring pool to increase recruiting by being more aggressive with applicant sourcing. Special procedures might be considered to help recruit individuals from various linguistic and cultural backgrounds [30].
- Initial instruction. Establish stronger relationships between academic institutions and those that train future primary and secondary educators. In the long run, the goal should be to guarantee that all teachers, especially those who teach in secondary schools, have completed higher education and receive their Training from universities or even inside a university setting.
- Ongoing instruction. Create ongoing education programs so every professor or teacher can access them frequently, especially through the right communication tools. These initiatives can help educate instructors on the most recent advancements in information and communication technologies [31].
- Teachers with pedagogical Training. To enable them to later contribute to the modernization of educational practices, special emphasis should be given to the recruitment and Development of teachers in pedagogical Training [36].
- Check. The inspection must include not just the ability to watch over the work of the teaching staff but also the ability to keep a dialogue going with them about changes in knowledge, instructional strategies, and information sources. It is important to consider ways to recognize and honour effective teachers.
- Management. Management changes to enhance school governance can make administrative work for teachers easier and enable consensus on teaching goals and techniques in specific settings [32].
- The participation of outside personnel. Parents and individuals with practical knowledge of some vocational school courses can play various roles in the pedagogical process.

Human Factor	Importance in Implementation (%)
Educational Management	43%
Teaching	27%
Diversity	11%
Student	10%
Values	9%

Table 2: Human Determinants in the Implementation of the Ecuadorian National Curriculum for

 Physical Education

Table 3:	Emerging	Factors in	Educational	Management
I able 5.	Lineiging	1 actors m	Laucational	Management

Factor	Importance in Management (%)
Pedagogical Support	47%
Institutions	21%
Resources and Materials	20%
Infrastructure	12%

- The environment at work. To keep good teachers in the profession, more must be done to encourage their motivation in challenging circumstances and to ensure they receive competitive pay and working conditions.
- Media education. The methods of instruction, particularly textbooks, significantly impact the calibre of pedagogical Training and teaching. For the teaching staff, updating the curriculum involves constant design and implementation processes. With the Development of technical tools, audiovisual documents may be sent more widely, and there are many opportunities for using computers to deliver new information, teach practical skills, or assess learning [33].

Educational management emphasizes that "educational management is a set of integrated and correlated theoretical-practical processes, both horizontally and vertically, to meet and satisfy the social needs addressed to education" (s/n). According to the author, educational management refers to the actions carried out by managers who oversee sizable organizational spaces of a whole that integrates ethics and efficiency, policy and administration of processes that tend towards the continuous improvement of educational practices, the exploration and exploitation of all possibilities, and permanent innovation as a systematic process. It extends beyond administrative procedures because it includes technical and curricular processes, as well as the management of human talent, and it indicates a method of seeing and interpreting educational action [34].

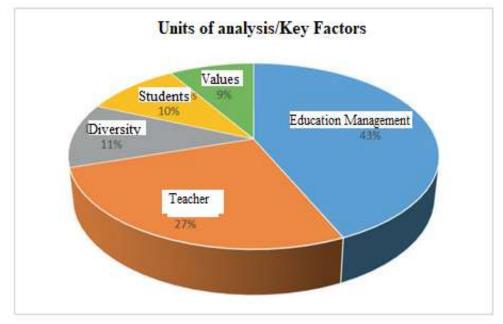
ANALYSIS OF THE RESPONSE:

In implementing the P.E. curriculum, five factors related to people emerged from the Q.D.A. Liter Mine program's results on instructors' open responses. These crucial elements included: educators, pupils, students, values, and diversity (see Illustration 1).

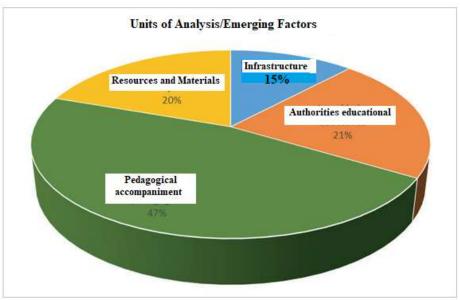
Addressing Inclusivity And Diversity In Physical Education Curricula: Strategies For Promoting Equity And Accessibility

	Count	% Codes
🗟 🌲 TEACHER		
• Knowledge	31	5,0 %
• effective	16	2,6%
 Motivation 	10	1,6%
- • creativity	28	4,6%
- • training	7	7,0%
Methodologies	29	4,7%
• Context	43	7.0%
A MANAGEMENT		
• Infrastructure	32	5,2%
- • Authorities	57	9,3%
- • Accompaniment	124	20,0%
• Resources and materials	52	8,5%
A STUDENTS		
• Cooperation/Readiness	25	4,1%
Learning	35	5,7%
🛚 💑 VALUES		
 development in values 	40	6,5%
impairment of values	14	2,3%
🛛 💑 DIVERSITY		
 Gender equality 	15	2.5%
 induction 	54	8.8%

Illustration 1: Important and growing factors Source: Liter Q.D.A. Mine Source: Own elaboration



Graph 1: Describes these elements and their features of Key factor percentage values Source: self-made



Graph 2: The analysis's findings' frequency and percentage values Source: self-made

The findings make it abundantly clear that educational management, represented by 43% of the total, is the main influencing factor the interviewed teachers believe to be a human factor in implementing the Ecuadorian physical education curriculum. This is followed by the teaching factor, which came in at 27%; diversity, 11%; student factor, 10%; and value factor, which came in at 9%. Following the same analysis approach, the findings show that infrastructure, authority, pedagogical support, resources, and materials are the new factors that emerged from teachers' comments addressing the essential elements of educational administration. Its percentage incidence is shown in Graph 2 below [35].

According to Graph 2, pedagogical support, which accounts for 47% of the main element of educational management, is emerging with the highest incidence. Institutions come in second with 21%, resources and materials with 20%, and infrastructure with 12.0%. In light of this, management refers to all facets of the physical environment, the materials and resources, the support, the manager's judgments, or everything associated with educational administration

CONCLUSION:

Based on the findings, it is inferred that educational management, a crucial human determinant, is the voice of demand used by the interviewed teachers to address issues that prevent the Ecuadorian physical education curriculum from being implemented. From this vantage point, it is evident that teachers are aware that educational management combined.

There should be no differences between the two that could disrupt the didactic and pedagogical dynamics because it is clear that educational management and the curriculum need to be coordinated. In this regard, Pedagogical Accompaniment is one element that impacts how the curriculum is implemented. To improve educational performance and quality, it is crucial from the educational management perspective that teachers receive this support and pertinent guidance and advice during this curricular transformation and implementation period.

The Education Authorities also play a growing role in managing the implementation of the Physical Education curriculum in this way. While this is true, they must continue to pay attention to the emerging difficulties in education and teachers' demands and requirements to guarantee professional Development. To accomplish instructional goals, education authorities control all aspects of school organization, including human, material, and financial resources.

Materials and resources are revealed from the same angle as yet another developing element of educational administration and a crucial component of the execution of the Physical Education

Curriculum. Materials and resources are an integral part of the teaching and learning process. In physical education, they are crucial for both the teacher and the student due to the nature of this area of knowledge. It is insufficient for the teacher to be competent and manage the programmatic contents to exercise his pedagogical function. The provision of resources and materials for higher assimilation of information must then be considered by educational management if the successful execution of the curriculum is to be secured. Finally, the infrastructure is a further determining factor in implementing the curriculum. As a result, from the perspective of educational management, it is crucial to have a meaningful vision of the educational space, as this is a fundamental element that promotes learning opportunities and is the dynamic axis of teaching practice.

According to the information above, it is accurate to say that a physical education teacher is a professional whose knowledge is based on a pedagogy of the body, which includes recreation, sport, bodily expression, and any information that can enhance the body's learning. A student with a complete self-image. In this way, the implementation of Ecuador's national physical education curriculum brings new challenges for the profession, which call for educational management that supports the entire process of how they can successfully absorb and handle the implementation of the curriculum. Attain educational objectives in this field of study and help students develop as people.

REFERENCES:

- 1. O'Brien, W., et al., Implications for European Physical Education Teacher Education during the COVID-19 pandemic: a cross-institutional SWOT analysis. European Journal of Teacher Education, 2020. **43**(4): p. 503-522.
- 2. Cruickshank, V., S. Pill, and C. Mainsbridge, 'Just do some physical activity': Exploring experiences of teaching physical education online during Covid-19. Issues in Educational Research, 2021. **31**(1): p. 76-93.
- 3. Opstoel, K., et al., Personal and social development in physical education and sports: A review study. European Physical Education Review, 2020. **26**(4): p. 797-813.
- 4. Gumantan, A., R.A. Nugroho, and R. Yuliandra, Learning during the covid-19 pandemic: Analysis of e-learning on sports education students. Journal Sport Area, 2021. 6(1): p. 51-58.
- Bakhmat, N., et al., Designing cloud-oriented university environment in teacher training of future physical education teachers. Journal of Physical Education and Sport®(JPES).-2019.-Vol 19 (Supplement issue 4), Art 192.-P. 1323-1332.-Publisher: University of Pitesti Country of publisher: Romania., 2019.
- 6. Pranoto, B.E. and S. Suprayogi, A Need Analysis of ESP for Physical Education Students in Indonesia. Premise: Journal of English Education, 2020. **9**(1): p. 94-110.
- 7. Bradley, V.M., Learning Management System (LMS) use with online instruction. International Journal of Technology in Education, 2021. **4**(1): p. 68-92.
- 8. Demchenko, I., et al., Training future physical education teachers for professional activities under the conditions of inclusive education. BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 2021. **12**(3): p. 191-213.
- Angulo, J., et al., Physical activity and exercise: Strategies to manage frailty. Redox biology, 2020. 35: p. 101513.
- 10. Lau, X.C., et al., Development and validation of a physical activity educational module for overweight and obese adolescents: CERGAS programme. International journal of environmental research and public health, 2019. **16**(9): p. 1506.
- 11. Mestanza-Ramón, C., et al., Tourism in continental Ecuador and the Galapagos islands: An integrated coastal zone management (ICZM) perspective. Water, 2020. **12**(6): p. 1647.
- 12. Yu, J.-E., Exploration of educational possibilities by four metaverse types in physical education. Technologies, 2022. **10**(5): p. 104.
- 13. Vasconcellos, D., et al., Self-determination theory applied to physical education: A systematic review and meta-analysis. Journal of educational psychology, 2020. **112**(7): p. 1444.

- 14. Aartun, I., et al., Pedagogies of embodiment in physical education-a literature review. Sport, Education and Society, 2022. 27(1): p. 1-13.
- 15. Varea, V., G. Gonzalez-Calvo, and A. García-Monge, Exploring physical education changes in the age of Covid-19. Physical Education and Sport Pedagogy, 2022. **27**(1): p. 32-42.
- 16. Sanjar, U. and A. Hayotxon, CONTENT OF PHYSICAL EDUCATION OF CHILDREN OF DIFFERENT AGES AND WAYS OF ITS ORGANIZATION (FOR EXAMPLE OF CHILDREN AGED 4-6). INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH ISSN: 2277-3630 Impact factor: 7.429, 2022. 11(06): p. 1-5.
- 17. Fernandez-Rio, J., et al., Gamification and physical education. Viability and preliminary views from students and teachers. Physical education and sport pedagogy, 2020. **25**(5): p. 509-524.
- 18. Azimovna, F.M., Formation of spiritual and moral values of pupils in physical education lessons. Asian Journal of Multidimensional Research (AJMR), 2020. **9**(11): p. 99-103.
- 19. Sitovskyi, A., et al., Differentiated approach to physical education of adolescents with different paces of biological Development. 2019.
- 20. Karasievych, S., et al., Training future physical education teachers for physical and sports activities: Neuropedagogical approach. BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 2021. **12**(4): p. 543-564.
- 21. Kholmirzaevich, A.J., Innovations In Fitness Works and Physical Education. Texas Journal of Medical Science, 2021. **2**: p. 4-5.
- 22. Palamarchuk, O., et al., Studying innovation as the factor in professional self-development of physical education and sports specialists. Revista Romaneasca Pentru Educatie Multidimensionala, 2020. **12**(4): p. 118-136.
- Jiménez-Díaz, J., K. Chaves-Castro, and W. Salazar, Effects of different movement programs on motor competence: A systematic review with meta-analysis. Journal of physical activity and health, 2019. 16(8): p. 657-666.
- 24. Ochoa-Martínez, P.Y., et al., PERCEIVED EXERTION AND MODERATE TO VIGOROUS PHYSICAL ACTIVITY IN MIDDLE SCHOOL STUDENTS ACCORDING TO THE PHYSICAL EDUCATION TEACHERS'EXPERIENCE. Facta Universitatis, Series: Physical Education and Sport, 2020(1): p. 179-188.
- 25. Ferreira, M., B. Martinson, and S. Talić, Promoting sustainable social, emotional learning at school through the relationship-centred learning environment, teaching methods and formative assessment. Journal of Teacher Education for Sustainability, 2020. **22**(1): p. 21-36.
- 26. Strat, T.T.S. and K.M. Jegstad, Norwegian teacher educators' reflections on inquiry-based teaching and learning in science teacher education. Journal of Science Teacher Education, 2023: p. 1-21.
- 27. Feyzi Behnagh, R. and S. Yasrebi, Examining constructivist educational technologies: Key affordances and conditions. British Journal of Educational Technology, 2020. **51**(6): p. 1907-1919.
- 28. Heilporn, G., S. Lakhal, and M. Bélisle, Examining teachers' strategies to foster student engagement in blended learning in higher education. International Journal of Educational Technology in Higher Education, 2021. **18**: p. 1-25.
- 29. Leger, L.S., et al., Health-Promoting Schools. Handbook of Settings-Based Health Promotion, 2022: p. 105.
- 30. Anderson, J.D., Ex-slaves and the rise of universal education in the South, 1860-1880. Thinking about Black Education: An Interdisciplinary Reader, 2023.
- 31. Ainscow, M., Promoting inclusion and equity in education: lessons from international experiences. Nordic Journal of Studies in Educational Policy, 2020. **6**(1): p. 7-16.
- 32. Özdemir, G., S. Sahin, and N. Öztürk, Teachers' Self-Efficacy Perceptions in Terms of School Principal's Instructional Leadership Behaviours. International Journal of Progressive Education, 2020. **16**(1): p. 25-40.

- 33. Martin, F., et al., Award-winning faculty online teaching practices: Roles and competencies. Online Learning, 2019. **23**(1): p. 184-205.
- 34. Correia, N., et al., Children's right to participate in early childhood education settings: A systematic review. Children and Youth Services Review, 2019. **100**: p. 76-88.
- 35. Mero Piedra, A.L., O. Pesthy, and K. Marton, Effects of a physical education intervention on attention and inhibitory control in Ecuadorian children with intellectual disabilities. Journal of Intellectual Disabilities, 2023: p. 17446295231189018.
- 36. del Val Martín, P., et al., The perceptual understanding of quality Physical Education (QPE) from Ecuador professionals. Retos: Nuevas Perspectivas de Educación Física, Deporte y Recreación, 2023. 48.