

The challenge of teaching Physical Education from the perspective of republican and democratic education

O desafio de ensinar Educação Física na perspectiva da educação republicana e democrática

El desafío de enseñar la Educación Física desde la perspectiva de la educación republicana y democrática

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Abstract

This essay aims to discuss and conceptually articulate Physical Education (PE) teaching presuppositions developed under the multidimensionality premise, under the republican and democratic education perspective. The text thematizes aspects that are decisive for this, emphasizing the multidimensionality of knowledge considering an educational praxis that comes along with a communicative teaching perspective, still having research as a pedagogical principle and structuring teaching processes in teaching units. Even recognizing that the explained proposal may not solve considerable problems in the area, we understand that taking it seriously can constitute an interesting way to make the debate about teaching PE from a republican and democratic education perspective deeper.

Keywords: curricular practice, contents, teaching-learning process, teaching method

Resumo

O texto objetiva problematizar e articular pressupostos para o ensino da Educação Física desenvolvida sob o prisma da multidimensionalidade dos conhecimentos na perspectiva da educação republicana e democrática. Tematiza conceitos relacionados à multidimensionalidade dos conhecimentos, práxis educativa e didática comunicativa, tendo na pesquisa um princípio pedagógico para o ensino estruturado em unidades didáticas. Com base na problematização elaborada, pode-se concluir que tais elementos, potencialmente, possuem possibilidade de contribuir sobremaneira com o desenvolvimento de um processo formativo emancipatório, algo organicamente conectado com o ideário de uma educação republicana e democrática.

Palavras-chave: *prática curricular, conteúdo, processo de ensino-aprendizagem, método de ensino*

Resumen

Este ensayo tiene como objetivo problematizar y articular presupuestos para la enseñanza de la Educación Física desarrollada en la premisa de la multidimensionalidad del conocimiento, en la perspectiva de la educación republicana y democrática. El texto tematiza aspectos que son determinantes, articulando la multidimensionalidad del conocimiento con la praxis educativa, acompañada de una didáctica comunicativa, teniendo la investigación como principio pedagógico y la estructuración de los procesos de enseñanza en unidades didácticas. Aun reconociendo que la propuesta explícita puede no resolver problemas considerables del área, tomarla en serio puede ser una forma interesante de profundizar el debate sobre la enseñanza de la EF en perspectiva de la educación republicana y democrática.

Palabras clave: *practica curricular, contenido, proceso de enseñanza-aprendizaje, método didáctico-pedagógico*

Opening remarks

The debate around the teaching of Physical Education (PE) in the school context, an aspect referred to by Kunz (2014), Caparroz and Bracht (2007), Bracht (2019), Bagnara and Fensterseifer (2019), among others, is fundamental as historically this curricular component is pedagogically addressed differently compared to others in basic education. This assumption demands efforts to think about the didactic-pedagogical aspects of PE in a very particular way that, in our view, needs to overcome teaching practices based on corporal or sporting instrumentalization.

In this direction, the thematization of knowledge in PE includes studying concepts, principles, and characteristics that refer to the stated knowledge (borrowing the term from Charlot, 2009) and, also, “moving” (Kunz, 2014), the experimentation and practical experience of the body culture of movement. Therefore, PE presents a specific knowledge that requires a different pedagogical approach than other curricular components.

This differentiation is basically due to the need for PE to address knowledge of body culture of movement in its bodily aspects (doing with), besides conceptual knowledge (common to other curricular components), preferably through the bias of multidimensionality of knowledge.¹ (Bagnara & Boscatto, 2022).

Charlot (2009) states that “doing with” constitutes a specificity of PE when compared to most other curricular components, which are much more concerned with “talking about.” This is an important aspect to understand because, although the study of body movement is present in other areas, PE and the Arts, for example, have it at their heart to a greater or lesser extent. The fact that it is a different component does not mean that it must fail to fulfill its pedagogical duties and legitimacy in the face of the responsibilities of school education.

Therefore, it is worth asking: Would it be possible to teach PE, mathematics, geography, or history in the same way? If PE is taught differently from mathematics, what would PE teaching methods look like if they aimed at a school education concerned with producing powerful knowledge² about the body culture of movement within an avowedly republican and democratic school?

We have worked with the premise of developing the teaching of school PE, taking as a motto the assumptions of republican and democratic education, and this perspective constitutes the backdrop for the proposal explained herein. An education that proposes itself as republican and democratic, for Bagnara and Fensterseifer (2019, 2020), plays an important role in the democratization of traditional knowledge. From this perspective, as Bagnara and Boscatto (2022) have written, it is up to this institution to open the doors from private life to public life through pedagogical experiences based on the knowledge historically produced and

¹ Aspect to be addressed in the text below.

² Theme that will be explained later.

accumulated by humanity and which is pedagogically addressed by the different curricular components, in the form of teaching content.

For this purpose, we are committed to an educational process mediated by communicative actions (communicative didactics³) that place students as protagonists of this movement, when developing educational processes with research as an important pedagogical principle⁴. Thus, in this essay, we aim to problematize and conceptually articulate assumptions for teaching PE developed under the premise of the multidimensionality of knowledge, connected with the perspective of republican and democratic education.

Methodology

This text is a theoretical essay that seeks to (re)construct theories and establish a reference framework that seeks to provide explanations of reality, whose role is to create basic conditions for intervention (Demo, 2004). Therefore, it does not mean that it is a text focused on reproducing ideas already published, nor is it a totally innovative theoretical elaboration. It seeks to move between two perspectives: on the one hand, it seeks to articulate and produce new interpretations of concepts, to a certain extent already known in the field of PE; on the other, by proposing a new elaboration based on the articulation of various elements, it aims to prospect different and more in-depth interpretations and understandings, bringing information that empowers the reader to advance the debate about the teaching of PE, taking as its motto the premises of a republican and democratic education.

To this end, the theoretical-conceptual assumptions described here are explained from a hermeneutic perspective. The hermeneutic effort is anchored in the triple task described by Ruedell (2014), who addresses announcing, translating, and explaining the concepts related to the themes in question. Taking the hermeneutic perspective seriously, as Fensterseifer (2009) taught, means considering and understanding the epistemological dimension without ignoring the tradition on which such dimension was built. Thus, in this text, in the same way as hermeneutics, we do not have the illusion or the pretension of exhausting the meaning of things, but rather, we seek to give and provide the opportunity for new meanings for things.

³ Concept that will be explained later.

⁴ Likewise, the theme will be presented in the following pages.

Multidimensionality of knowledge: a backdrop for teaching

Physical Education

When we think about aspects of teaching PE in public schools, we understand that they need to align with the school education perspective in a republican and democratic society. The legal construct assumes that Brazilian education aims at the full development of the student, their preparation for the exercise of citizenship, and their qualification for work (Brazil, 2017).

Paying attention to this condition is crucial when considering educational processes since, as Bracht (2019) states, societal changes also reconfigure social phenomena and the concepts that inform them. This aspect requires that the legitimizing discourse of PE try to think about its educational function, always aligning it with new meanings.

Considering this assumption, Bagnara and Boscatto (2022) understand that PE needs to be related to the premise of a republican and democratic education, a prism that governs Brazilian society. When reflecting on the specificities of republican and democratic education, it is essential to keep in mind that this type of education can cause some discomfort in certain sectors of society, as it assumes the intellectual development of all students (and not just some, belonging to more privileged social classes), to the extent that it assumes distance and can call into question truths considered dominant and absolute, demanded by entities of a political-partisan, religious, economic/market, media, or other reductionist forms of interpretation of the world. We understand that the purposes of republican and democratic education, therefore, reside in the production of knowledge and in the exercise of reason, enabling subjects to make lucid, enlightened, and autonomous decisions (Fensterseifer, 2013; Bagnara & Fensterseifer, 2019; Bagnara & Boscatto, 2022).

Hence, we understand that the social responsibility of the school, and also of PE, when proposing the intellectual development of young people, lies fundamentally in producing powerful knowledge. For Young (2007, p. 1,294), powerful knowledge “refers to what knowledge can do, such as provide authoritative explanations or new ways of thinking about the world.” Bagnara and Boscatto (2022) highlight that powerful knowledge refers to specialized knowledge, which differs from knowledge that lacks more elaborate systematization and circulates in the social context. By seeking to understand universality and provide generalizations, this type of knowledge has the potential to provide subjects with a better

understanding of the sociocultural context, enabling lucid interventions in the world, as it provides a reference basis so that the subject can make judgments based on criteria validated by communities of experts. It is a type of knowledge that differs from personal experience, challenging it.

Young (2007) attributes a conceptual nature to powerful knowledge. Bagnara and Fensterseifer (2019, 2021) expand the concept of powerful knowledge articulated with PE, indicating that, besides the conceptual dimension, it is necessary to think about producing powerful knowledge linked to the bodily dimension. The authors state that addressing knowledge from a conceptual perspective is quite important for PE but insufficient due to the nature of the object that this curricular component deals with at school.

Thus, in the same way as Bagnara and Fensterseifer (2019, 2021), we understand that in PE, the concept of powerful knowledge is expanded, linking to body movement and knowledge and expertise that contemplate the political formation of students who have the potential to contribute to the exercise of citizenship, having as a horizon of formation the performance of subjects in a republican and democratic society.

Thus, teaching content (dances, sports, fighting, gymnastics, games and play, urban and nature adventure body practices, aquatic activities, and circus activities, among others) needs to be addressed at levels of complexity, depth, and diversity, in a relationship of permanent tension with the knowledge historically produced by the academic-scientific field of PE. Furthermore, considering an organic articulation between the corporal and conceptual dimensions, they need to be conceived.

In the meantime, articulating the two premises set out (republican and democratic education and the concept of powerful knowledge from the perspective of PE) with the particularities of PE, the need emerges to structure pedagogical work based on the multidimensionality of knowledge⁵. This perspective deals with the bodily and conceptual dimensions in an articulated manner, with the respective subdimensions of the contents. It is essential to highlight that the multidimensionality of knowledge has as its main premise the presentation of the theoretical framework that surrounds the different PE contents and that contributes to the organization of the teaching process; however, the development of the *teaching*

⁵ Due to the space limitations of this text, the topic will be presented in an introductory manner. For further information, we suggest reading Bagnara and Boscatto (2022).

units, the classes and the problematization of the contents, need to be based on the educational praxis (a theme that will be revisited later).

The dimension of bodily practice encompasses the knowledge produced based on experience, predominantly *in* and *through* bodily movement. Bagnara and Boscatto (2022) point out that the dimension of bodily practice needs to be guided by developing educational actions that seek to overcome the simple transmission or repetition of standardized movements, overcoming teaching practices based on instrumental rationality founded on know-how. Therefore, in PE classes, it is necessary to provide formative experiences in which students can attribute their meanings and, thus, soak up the knowledge produced.

The dimension of body practice is subdivided into fundamental and advanced body subdimensions. The fundamental body subdimension encompasses those contents and knowledge considered essential and indispensable, which characterize certain content. In this subdimension, the operational principles necessary to achieve the objective of a given bodily practice are listed, with human movement as the founding element. In this direction, the operational principles and technical gestures that characterize a certain sport fit in, the steps or rhythm of a certain dance style that configure it as being that style and not another, and the specific movements that characterize a certain fight, among others.

The content and knowledge linked to the sub-dimension of advanced body practices refer to those that enable the student to practice certain content in a more proficient and advanced manner, using more refined individual and collective tactical movements and with more complex technical gestures that are more difficult to perform. In this sub-dimension, with regard to sports, for example, more complex game systems and technical and tactical actions that require greater technical, physical, and motor improvement from students are taught; in gymnastics (competitive gymnastics, for example), diverse and refined formations can be taught in groups, among other possibilities.

Knowledge related to the conceptual dimension, in turn, refers to concepts that provide an understanding of the body culture of movement and its relationship with the world. More specifically, González and Fraga (2012) highlight that conceptual knowledge corresponds to the set of data and concepts that describe and explain different aspects of the body culture of movement.

In our understanding, the conceptual dimension can be organized into three subdimensions: fundamental, relational, and critical-social. In the fundamental conceptual subdimension, the knowledge studied refers to the “stated knowledge” (concepts) related to the movements learned in the subdimension of fundamental bodily practices. This subdimension requires students to analyze the operational principles and elements that characterize the internal logic of teaching content. Concepts about specific techniques, basic rules for practice, historical context, and other particularities considered fundamental for learning the content under study are studied.

The relational conceptual subdimension lists the knowledge that, even though it is more directly linked to the content being studied, is thought of from a broader perspective, also relating to other content of the body culture of movement. In other words, in this subdimension, the thematized knowledge is based on the content being taught (sports, for example). Still, it is not exclusive to it or has an end in itself, being related to other concepts and content. The aim, then, through the knowledge listed in this subdimension, is to promote relationships and articulations between the contents of the body culture of movement with themes that require an interlocution of knowledge of a biological, physiological, anatomical, and sociocultural nature, enabling a broader understanding.

The third subdimension, called critical-social conceptual, encompasses knowledge that has as its starting point for studying the contents of body movement culture but is thought of from a broader perspective since, at the same time, they are integrated and linked with other areas of knowledge/curricular components. In this subdimension, knowledge is studied in constant tension with the sociocultural context, considering, fundamentally, the world of work, the fundamental themes for the exercise of citizenship, and the subjects' free time. Knowledge of the critical-social conceptual subdimension has the potential for developing integrated and interdisciplinary educational actions, as the themes linked to it cross several areas of knowledge.

It is important to mention, in this context, that the dimensions of knowledge, with the sub-dimensions of content, can be conceived as a fundamental aspect of the didactic-pedagogical organization of PE teaching at school; however, they need to be taught in a non-fragmented way. By carrying out pedagogical mediation based on the sub-dimensions of the content and considering the indivisibility of knowledge, possibilities increase to prevent classes

and teaching units from becoming⁶ loose in the space-time of the educational process. This premise is crucial because, as Rezer and Fensterseifer (2013) write, a class is not floating in space, but is in the world and needs to build relationships with other spheres of this world.

In this context, the need emerges to develop teaching processes taking educational praxis as a motto, which must be understood in its organic, indivisible, and non-dichotomous relationship between theory and practice, action and reflection. Thus, it can be said that praxis is the human way of intervening in the world. For Bracht (2014, p. 61), one way to understand praxis is to consider the idea of “movement-thought” or, even, a conscious action, enabling autonomous and creative decision-making in the world.

We refer to praxis in the teaching process as an alternative to face a historical problem in the area, namely, the dichotomy or lack of relationship between theory and practice, between PE and the world. For Gariglio (2013), the dichotomy between theory and practice in PE, in addition to being the result of the tradition on which the area was built, is reinforced by the applicationist model that has still permeated the classes of this curricular component.

Specifically in this text, in which the production of powerful knowledge to contribute to the exercise of citizenship in a republican and democratic society is considered a horizon of training, understanding how a teaching process develops from the perspective of praxis is an indispensable condition. We highlight that one of the main characteristics of a didactic-pedagogical organization, designed based on the sub-dimensions of the content, is the possibility of working from a praxis perspective.

This implies that there is no separation/division into theoretical and practical classes in PE, in the same way that the sub-dimensions of the content should not be addressed in different classes or different moments of the class, separating them. Still, rather, it is necessary to take into account that there are PE classes taught in different spaces (classroom, gym/sports court, library, field, track, laboratories, parks, and squares, among others) and that articulate the dimensions of the content all the time; classes that, at certain times, have greater emphasis on body movement, contextualized with the conceptual dimension and its sub-dimensions and with the world, and, at other times, have greater centrality in the conceptual dimension of the body culture of movement, when the emphasis, in turn, is on the discussion and critical analysis

⁶ Read further.

of certain characteristics of what is being studied, but also contextualized with the body dimension and with the world.

This teaching perspective, in our understanding, is particularly articulated with the idea of “thought-movement” presented by Bracht (2014) and described previously, which constitutes a fundamental element for understanding the concept of praxis presented here. Even though this idea may sound contradictory, it is important not to lose sight of the fact that structuring teaching into dimensions and subdimensions, as already explained, is only intended to help teachers organize the educational process and demonstrate the complex web of relationships that the contents have, and not to lead to the development of classes segregated into dimensions and subdimensions.

In this sense, we understand that developing the formative process from the perspective of praxis, mediated by communicative actions, dealing organically and considering the unity (from the perspective of “one”, indivisible) of the dimensions of the contents (conceptual and corporal – theory and practice), enhances the production of multidimensional and powerful knowledge by students. This dynamic makes it possible to establish denser relationships between knowledge, allowing for a more elaborate and broader understanding of the world, at least with regard to the universe of body culture of movement, something that is crucial for a formative process anchored in the assumptions of republican and democratic education.

Teaching Physical Education from the perspective of communicative didactics

As we seek to bring the theoretical-conceptual assumptions presented in this text closer to the school context, it is pertinent to consider and better understand how a teaching process develops when it’s aimed to produce powerful knowledge articulated with the premise of republican and democratic education, addressed pedagogically with communicative didactics (Kunz, 2014; Boscatto, 2008) and which has the multidimensionality of knowledge as its backdrop. In our understanding, these assumptions are in line with an educational project that has an emancipatory formation as its horizon and, therefore, deserve to be highlighted when we discuss the didactic-pedagogical scope of this proposition.

For Libâneo (2000), didactics integrates the foundations, assumptions, theoretical conceptions, and other aspects that influence the way of methodologically organizing the teaching process. For the school curriculum, didactics then assumes a mediating prism, as it encompasses the epistemological and scientific bases, concepts, content, and also the form or organization of the development of teaching actions. In this sense, it can be understood that didactics plays a fundamental role in mediating knowledge historically produced in the teaching and learning processes, at the moment in which these are transposed to classes as teaching content.

In this sense, didactic-pedagogical actions can be considered a space conducive to interactions between subjects (teachers and students, students and students, and between them and the world) that are developed based on the human capacity to think, reflect, and learn about the world. In this case, education is closely related to rationality, as teaching processes are developed through the rational capacity to think and reflect that human beings possess. For Kant (2013), the concept of rationality is linked to enlightenment, which means intellectual emancipation, that is, using one's own rational capacity to act autonomously.

Thus, the educational project proposed in this essay seeks to counter a historical perspective of the area, centered on an instrumental reason, linked to simply decontextualized and mechanical “know-how”, which, as stated by Boscatto and Kunz (2009), disregards the relationship between human beings and the world, which attributes and constitutes its own senses/meanings. In this direction, we propose the development of didactic-pedagogical actions based on the assumptions of communicative rationality and, with this, the teaching processes are accompanied by communicative didactics.⁷

For Boscatto and Kunz (2012), communicative didactics presents two founding elements for teaching PE: intersubjective dialogue, considered an important aspect for communicative action, which allows critical reflection on the body culture of movement; and body dialogue, that is, human movement manifesting itself as a subjective expression, which conveys a sense and meaning specific to “moving”. Regarding the latter, Kunz (2014) adds that the rescue of this language of movement, which transcends the development of objective instrumental competence, should bring new pedagogical values to PE, thus helping in the

⁷ The paradigm of communicative reason is discussed by authors such as Habermas (1987), Boufleuer (2001), Kunz (2014), and Bolzan (2005), who make deeper approaches to the school context in their works.

difficult task of legitimizing it as a pedagogical practice that contributes to the formation of citizenship, and that also considers the world of work and the free time (leisure) of the subjects.

In this context, a teaching process based on communicative didactics, as explained by Boscatto and Kunz (2012), must enable the production of knowledge based on the intersubjective relationship, which presupposes providing teaching situations based on social interaction. For Bannell (2006), communicative action and, with it, communicative didactics, can establish a reflexive relationship with the world, in which the claim of validity raised in each statement must be recognized intersubjectively. In this case, educational actions need to prioritize dialogue between teachers and students with a view to reaching a provisional understanding that is based on powerful knowledge and its production/resignification, considering the assumptions of a republican and democratic education.

In the school context, then, there emerges the need to promote communicative actions in which subjects can act in a non-coercive manner and with their own intentionality, with the purpose of understanding each other and producing meanings relative to the teaching contents studied, which need to be in line with the school educational project (Boscatto & Kunz, 2012). Thus, social interaction constitutes a fundamental element of communicative didactics, which can be addressed pedagogically in an intentional way in the didactic-pedagogical actions of PE. Therefore, communicative didactics is closer to a hermeneutic perspective than to a technical bias.

This means that, in teaching processes, subjects need to develop a reflective understanding of the senses and meanings implicit in the body culture of movement, which were and are constructed historically and should materialize within the scope of PE pedagogical actions. It is worth highlighting, then, that the ability to understand the symbolic elements that are inherent to teaching content occurs through reflection processes, which are mediated by acts of language and through intersubjective dialogue between those involved in the educational process because, to the extent that discussions are provided about what is being studied, subjects have the possibility of reflecting and debating the problems that are constituted and inserted in the historical and sociocultural context, attributing their own meanings to the various thematized elements.

In our proposal, communicative didactics is also followed by research as a pedagogical principle (and educational praxis, as described previously) as a teaching perspective, which

constitute the basic foundations of didactic-pedagogical actions and, thus, the basic assumptions are questioning, investigation, analysis, and reflection on content and knowledge (scientific, philosophical, epistemological, ethical, aesthetic).

Considering that one of the social responsibilities of the school is the production of knowledge based on academic-scientific criteria, developing studies and research with students from this perspective can potentially contribute to clarifying the facts, myths, dogmas, charlatanism, and other statements related to the body culture of movement and which are present in different social contexts. This enables a formative process based on enlightenment, which, we reiterate, allows students to establish a more lucid and autonomous relationship with the world, something that is crucial for a formative process developed based on the assumptions of republican and democratic education.

Research: a fundamental pedagogical principle

Research is considered a founding principle of mediation of the pedagogical process from the perspective of this educational proposal. This condition indicates that both the teacher needs to be in constant search for the study, resignification, and deepening of themes, concepts, theories, etc., and also that students need, in the school environment, to be mobilized to produce new and resignify old knowledge. In both situations, research constitutes an important element, which can contribute to the unveiling of everyday problems through the search for knowledge based on tested evidence and put to the test of scientific rigor.

Thus, Boufleuer (2005) understands that, as one of the fundamental dimensions of schooling, research is understood as an investigation through which consistent and justified explanations of facts in the world are developed. Thus, research presents as a form of study and critical reflection on concepts, which allows for the deepening, learning, discovery, and unveiling of something that until then could have been obscure. In this direction, we understand research as a pedagogical principle that is the basis of an emancipatory proposal.

For Demo (2011, p. 17), “the emancipatory path cannot come from outside, imposed, or donated, but will be an achievement from within, self-construction”. Thus, we understand that, as Valer, Brognoli, and Lima (2017) have written, research, as a pedagogical principle, constitutes a path that empowers students to achieve their intellectual independence and act as

subjects capable of thinking for themselves and (re)constructing and redefining knowledge. This is a proposal that envisions the student's leading role in their own learning process, and, furthermore, has the potential to contribute to training that enables individuals to act autonomously in contexts and situations beyond school, linked to the world of work, the exercise of citizenship, and free time in a republican and democratic society.

In this sense, pedagogical work guided by research allows students, as stated by Martins (2009), to abandon the condition of listeners repeating content and concepts and begin to act and reflect with critical awareness in the face of the phenomena studied. This means thinking about a teaching process mediated by communicative actions (as presented previously), in which students assume an active and questioning role regarding school content and knowledge.

Understanding research as a pedagogical principle implies, as Demo (2011) teaches, conceiving it from the perspective of its own elaboration, condensing it into a multiplicity of horizons and placed as a training goal. According to the author, students' notebooks need to evolve from simple copies of classes and become a place for writing essays. This does not rule out the recording of certain concepts, but such concepts must be recreated by students through various motivating/mobilizing methods, such as carrying out exercises by hand; group discussions to analyze understanding; searching for content in books and virtual digital repositories; questions in class to spark investigative doubt; and, above all, the reconstruction of research outside the classroom environment.

From this perspective, for Demo (2011), this does not mean that the student will reinvent the law of gravity or the alphabet, nor will they redefine the concepts of aerobic and anaerobic exercise, for example, as this is where learning is needed, in the sense of educating oneself. As the author explains, the interesting part begins later, when students discover how to internalize concepts without memorizing them, how to practice convincing themselves that it works; how to experiment to solve problems; how to use the condition of a research instrument to question and dialogue with reality. In Demo's (2011) view, this dialogue needs to be intelligent, taking reality as a process and attitude and the student as a part of everyday life.

Similarly, the General National Curricular Guidelines for Basic Education (Brazil, 2013) emphasize that research, as a pedagogical principle, presupposes identifying doubts or problems, selecting and interpreting information from reliable sources and developing arguments taking the knowledge acquired/produced as the main foundation. As described in the aforementioned

Guideline, this movement contributed to the emergence of the scientific attitude, which implies, in this way, enhancing the development of the capacity to interpret, analyze, criticize, reflect, learn, seek solutions, and propose diverse alternatives in the face of political, social, cultural, economic, and technological issues that arise. Thus, more than sparking curiosity, it is essential to understand that, when assuming research as a pedagogical principle, it is crucial in the course of the educational process to awaken the political subject, capable of creating and proposing solutions elaborated in an intersubjective way.

Specifically with regard to school PE, the ability to carry out readings, research, and discussions on the elements of body movement culture is one of the premises that need to be present in classes. It is essential, however, that the teacher conducts this process by indicating reliable references that have a scientific basis, in order to prevent students from being induced by relativism⁸, which can often lead to the formation of distorted and reductionist opinions, favoring the alienation of subjects instead of enhancing a formative process guided by enlightenment.

In this aspect, research as a pedagogical principle approaches reality, denaturalizing it, revealing it, and demystifying facts, problems, and other topics of study, something fundamental in a republican and democratic education. Conducting research is crucial in this process of enlightened education, as it allows students, in the search and analysis system, to come across diverse content from different sources that present different theoretical biases, which, depending on how the teacher mediates the process, contributes to constant questioning, to carrying out critical analyses and to the elaboration of well-founded arguments.

It is important to resume and emphasize that the multidimensional perspective of knowledge and the respective sub-dimensions of content, as already explained, are anchored in the epistemological, scientific, and philosophical foundations that make up the academic field of PE. This means that, when addressing the different contents of the body culture of movement, it is of fundamental importance to contextualize them and instigate the student's research capacity regarding their multiple aspects, such as their origin, characteristics, the

⁸ Fensterseifer (2020) points out that one of the functions of republican institutions is precisely to restrain the "inflation of the self", protecting the world from egocentric subjects and the perception that there is something that surpasses us.

biological elements that constitute them, contemporary sociocultural and political problems, among other issues that are surrounding and cross the studied theme.

In this direction, in the same way as Demo (2011), we understand that research as a pedagogical principle can constitute an integral part of the formative process, in which it seeks to contribute to the formation of a historical-critical and self-critical subject or, in other words, that has an emancipatory formation as its horizon. To this end, we have focused on structuring teaching in the form of teaching units, seeking to demonstrate the articulation between the content, knowledge, and classes expected/planned for each of the topics under study.

Teaching units: an alternative for structuring Physical Education teaching

As Caparroz and Bracht (2007) state, it is difficult for teachers to organize, plan, or systematize the teaching of PE at school. Consequently, this constitutes a difficulty in teaching this curricular component. Seeking to propose an alternative to the problem posed by the authors, as well as to present our understanding of what PE can be or what we want it to be (Bracht, 2019), we have carried out a series of confrontations to develop proposals that can contribute to the process of legitimizing PE as a curricular component that has a republican and democratic formation as its horizon. In this sense, we have structured the educational process in PE taking teaching units as the motto.

Creating teaching units can be a great alternative for structuring and organizing the teaching process, as it allows one to visualize the design planned for developing school content in detail. In this way, a teaching unit can be structured with the objective of grouping classes with related themes to methodologically systematize a significant part of the content that will be taught, including highlighting specific objectives and an evaluation system if this is in the teacher's interest.

Planning lessons based on structuring teaching units encourages creativity, flexibility, and innovation. However, this process involves decision-making on a series of factors, making it possible to think about developing different teaching units for teaching the same teaching content. This movement presupposes, by teachers, mastering the content, establish relationships and approximations between concepts, themes, and different knowledge, distribute the

necessary time (within the time available in the curricular component), think about ways of monitoring and evaluating the educational process, and structuring methodologies to enhance student learning (Bagnara & Boscatto, 2022).

In this regard, the explanation and distribution of content in a certain number of classes allows the teacher to develop the proposal of didactic pedagogical strategies linked to the educational project with greater clarity. This means that it is necessary to consider that each teaching unit is linked to the larger learning objectives. They need to be articulated with the educational institution's pedagogical project, curricular references, and official guidelines.

This perspective, in our understanding, aims to contribute to a teaching process that has the potential to develop the purposes of a republican and democratic society through debate about fundamental demands for the exercise of citizenship and acting autonomously in the world of work and in free time. To this end, teaching units need to be organized from the multidimensional perspective of knowledge and with the respective subdimensions allocated throughout a certain number of classes.

Specifically related to the content subdimensions, it is important to emphasize, again, that they present as a form of didactic-methodological organization for developing teaching units. It is necessary to consider, however, that the contents of each subdimension need to be developed having the assumptions of communicative didactics as a fundamental element, research as a pedagogical principle, and a relationship of tension between the contents, knowledge, and expertise of each dimension/subdimension during the development of classes, having in praxis the didactic-pedagogical premise.

Caparroz and Bracht (2007) state that PE teachers need to be aware that their didactic-pedagogical “know-how” is not given *a priori*, but constitutes a continuous process of (re)construction, without models that can be mechanically transposed. Thus, to demonstrate to the reader how a basic teaching unit would be structured, taking as a basis the concepts explained in this essay, we present an example for analysis in Table 1. However, it is important to consider that the teaching unit presented here constitutes only an example, organized based on the underlying theoretical assumptions, and should not be considered a prescription.

Table 1.

Simplified example of Teaching Unit – content: wrestling

Class	Specific contents ⁹	Possible didactic-methodological actions
Class 1 ¹⁰	<i>Fundamental conceptual subdimension</i> Fundamental characteristics: historical, philosophical aspects and principles of wrestling; Forms of manifestation and concepts: wrestling, martial arts, combat sports, self-defense; <i>Relational conceptual subdimension</i> Clothing, materials, facilities, confederations, and/or federations, etc.	Dialogical exhibition with presentation of images and videos about the listed contents.
Class 2	<i>Fundamental body subdimension</i> Fighting games based on distance classification.	Development of specific simulations and games, individual and in small groups, based on short and medium distances.
Class 3	<i>Fundamental body subdimension</i> Fighting games based on distance classification.	Development of specific games, individual and in small groups, based on long and mixed distances. Procedural evaluation: personal summaries (textual production, evaluation sheets, dialogue) on the principles of wrestling based on distances.
Class 4	<i>Critical-social conceptual subdimension</i> Wrestling as a form of cultural expression; Afro-Brazilian wrestling and culture; Wrestling, prejudice, and social discrimination.	Approach to the integrative theme of knowledge: “Wrestling, prejudice, and social discrimination.” If possible, consider the participation of teachers from other areas to broaden the debate. Watch and analyze a film on the subject. E.g.: Race; My First Fight; Beetle; Boxer. Develop extra-class research on the topics listed for this class (articles, books, documentaries, specific reports, etc.).
Class 5	<i>Critical-social conceptual subdimension</i> Wrestling, sports, and racism.	Continuation of class 4. Relate to the historical and original elements of capoeira (wrestling that will be explored in more depth from class 6 onwards). Analysis and discussion of the film from class 4. List the aesthetic elements (feelings, emotions) and, together with the critical-reflective aspects that the film presents, conduct a dialogue about the specific content of the class. Formal assessment: in pairs or small groups, produce a summary as a textual production on the theme “structural racism.”

⁹ The contents are presented based on the subdimensions to which they are linked only to demonstrate the different nuances and interfaces of the contents and knowledge, however one cannot forget that praxis constitutes a founding element of the educational process.

¹⁰ The example presented here considers that each class consists of 2 periods of 50 minutes each.

Class 6	<i>Fundamental body subdimension</i> Historical aspects, origin, and fundamental characteristics of capoeira. Operational principles – basic attack and defense moves/strikes: capoeira (swing, defense, au, negative, role, blessing, hammer, crescent, cocorinha).	Briefly review the presentation/contextualization of capoeira performed in class 5. Analysis of educational videos that teach how to practice the moves chosen for experience/experimentation. Someone who knows how to practice can be invited to help with these tasks. Simulations, games, and experience of attack and defense movements in a playful way.
Class 7	<i>Fundamental body subdimension</i> Operational principles – basic attack and defense moves/strikes: capoeira (swing, defense, au, negative, role, blessing, hammer, crescent, cocorinha).	Analysis of educational videos that teach how to practice the moves chosen for experience/experimentation. Someone who knows how to practice can be invited to help with these tasks. Simulations, games, and experience of attack and defense movements in a playful way.
Class 8	<i>Fundamental body subdimension</i> Operational principles – basic attack and defense moves/strikes: capoeira (swing, defense, au, negative, role, blessing, hammer, crescent, cocorinha).	Simulation and experience of a capoeira circle and representation of the moves learned. Procedural evaluation: simulation of a capoeira circle involving the entire class. If possible, invite someone who practices capoeira to contribute specific content. Formal assessment: personal summaries, as a textual production, addressing the particularities and specificities of capoeira.
Class 9	<i>Relational conceptual subdimension</i> (relationship between wrestling and dance) Wrestling: sport, game, dance, ritual; Dance, human movement, and body language (body expression).	General presentation of the themes: conceptualization and general contextualization of the wrestling and dances. Suggested approach: study of texts or reports, presentation of material produced by the teacher, etc. It is suggested that a problematizing perspective be used to instigate reflection on the relationships between wrestling and dance, but without disregarding other themes of the body culture of movement.

Source: Adapted from Bagnara and Boscatto (2022).

We seek to present the teaching unit of wrestling¹¹ in a way that makes it possible to visualize the movement of dialogue between the dimensions of knowledge, recognizing the centrality of classes in certain sub-dimensions. Still, in a spiral relationship since in its development proposal, it is possible to observe the resumption of debates with the realization of constant in-depth studies in the different sub-dimensions. Furthermore, it allows one to observe the existence of a relationship of complexity (progressive), as it makes it possible to

¹¹ Rufino (2017) presents a different teaching perspective for wrestling that has the potential to contribute to the development of other educational possibilities.

constantly seek approximations, articulations, and contextualizations between the knowledge and content already taught in previous classes, demonstrating to students the relationships that exist between the different contents and knowledge of different subdimensions, deepening them.

It is important to note, however, that some aspects described in the teaching unit were not covered in this text due to space limitations, for example, the evaluation processes and the integrative theme of knowledge. Briefly, regarding assessment, we can indicate that the main purpose of procedural assessment is to provide a response or analysis on the development of the educational process and demonstrate the understanding that students are producing about the content taught. Formal assessment, in addition to the prerogative of evaluating the teaching and learning process and the consequent production of knowledge, is responsible for meeting the legal prerogative, which presupposes the indication of students' academic performance.

The integrative theme of knowledge, presented in classes four and five of the teaching unit, aims to promote a dialogue between PE and other curricular components and areas of knowledge. The curriculum's integrative themes are linked, above all, to the critical-social conceptual sub-dimension of the contents and emerge from social problems that are linked, at the same time, to both the body culture of movement and other areas. For a broader understanding of the themes that constitute the integrating theme of knowledge, it may be important to promote integrated/interdisciplinary didactic pedagogical actions.

Furthermore, another aspect that we consider to be quite relevant in the proposal of teaching units lies in the active involvement of students in the knowledge production process. This, in our understanding, is a very significant potential of the presented proposal, as it places the student at the center of the learning process, moving from a mere listener or repeater of technical gestures to a protagonist in the search for information, elaboration of arguments and awareness of the contents revealed and knowledge produced, something fundamental considering the theoretical-conceptual assumptions of a republican and democratic education.

Closing remarks

Presenting a proposal that can encompass the breadth of the objective of this essay implies articulating a series of elements with a certain complexity, as they carry tensions, dilemmas, and, depending on the bias of analysis and relationships established, even a certain contradiction. This is not the case with this text because, by proposing a teaching process based on the multidimensionality of knowledge (and sub-dimensions of content), adopting a praxis perspective, centered on communicative didactics and having research as a pedagogical principle, it organically aligns with the development of a formative process with emancipatory potential, something connected with the ideal of a republican and democratic education.

The multidimensionality of knowledge has the main objective of assisting in the organization of the educational process, as it considers the relationships that the different PE contents can present between them and other knowledge from other curricular components and the world. In this sense, it seeks to broadly address the contents of PE, demonstrating the various nuances and possible study interfaces. Contrary to what one might imagine in a more superficial analysis, it does not provide for the development of fragmented or compartmentalized teaching since, when articulated with praxis and communicative teaching methods, it makes it possible to establish denser relationships between knowledge, allowing for a broader and more elaborate understanding of the subjects under analysis.

By anchoring itself in research as a pedagogical principle, this proposition places students as active subjects in producing knowledge, providing subsidies so that they can act autonomously in their sociocultural context. In this case, the research seeks to reveal reality, demystifying it and weaving new understandings, confronting knowledge, and stimulating the exercise of reason. The meanings produced in this way are constantly reconfigured, potentially contributing to producing powerful knowledge in PE.

Thus, promoting a formative process guided by enlightenment and centered on exercising reason, a central aspect of republican and democratic education, is crucial in the current sociocultural situation. This premise becomes even more critical as myths, charlatanism, and denialist movements have gained momentum and spread, on a large scale and without any control, information of a dubious nature. A school education focused on producing powerful knowledge is essential to counter this.

We believe that criticism and suggestions, demonstrating possible gaps, weaknesses, and even potential, will be decisive for us to continue advancing in the elaboration of educational proposals with a critical bias because, by thinking collectively and considering the contradictory, we will be able to arrive at more consistent proposals that are in line with a PE that has as its horizon the contribution to the formation of citizens to act in a republican and democratic society.

References

- Bagnara, I. C. & Boscatto, J. D. (2022). *Educação Física no Ensino Médio Integrado: especificidade, currículo e ensino* (uma proposição fundamentada na multidimensionalidade dos conhecimentos). Editora Unijuí.
- Bagnara, I.C. & Fensterseifer, P. E. (2019). *Educação física escolar: política, currículo e didática*. Editora Unijuí.
- Bagnara, I.C. & Fensterseifer, P. E. (2020). O desafio político da educação escolar: desdobramentos para pensar a formação inicial em educação física. *Educação*, 45(1), e38/1–22.
- Bagnara, I. C. & Fensterseifer, P. E. (2021). Educação Física escolar e conhecimento: notas introdutórias sobre os desafios político, curricular e didático. In: Prestes, F. S.; Junges, F. C.; Callai, H. C. & Silva, S. P. *Escrita e pesquisa em educação nas ciências: experiências do pós-doutorado* (pp. 39-58). Editora Ilustração.
- Bannell, R. I. (2006). *Habermas e educação*. Autêntica.
- Bolzan, J. (2005). *Habermas razão e racionalização*. Editora Unijuí.
- Boscatto, J. D. (2008). *Por uma didática comunicativa para a Educação Física escolar*. [Dissertação de mestrado em Educação Física]. Universidade Federal de Santa Catarina.
- Boscatto, J. D. & Kunz, E. (2009). Didática comunicativa: contribuições para a legitimação da Educação Física escolar. *Revista da Educação Física/UEM*, 20 (2), 183-195.
- Boscatto, J. D. & Kunz, E. (2012). Didática comunicativa e interação social: fundamentos teóricos para práticas emancipatórias da Educação Física escolar. *Pensar a Prática*, 15 (4), 1030-1044.

- Bouffleuer, J. P. (2001). *Pedagogia da ação comunicativa*. (3. ed.). Editora Unijuí.
- Bouffleuer, J. P. Pesquisa (2005). In: González, F. J. & Fensterseifer, P. E. (Org.). *Dicionário crítico de Educação Física*, (pp. 321-325). Editora Unijuí.
- Bracht, V. (2014). *Educação Física & Ciência: cenas de um casamento (in)feliz*. (4 ed.). Editora Unijuí.
- Bracht, V. (2019) *Educação Física escolar no Brasil: o que ela vem sendo e o que pode ser* (elementos de uma teoria pedagógica para a Educação Física). Editora Unijuí.
- Brasil (2013). *Diretrizes Curriculares Gerais Nacionais para a Educação Básica*. Ministério da Educação.
- Brasil (2017). *Base Nacional Comum Curricular: Ensino Médio*. Ministério da Educação.
- Caparroz, E. F. & Bracht, V. (2007). O tempo e o lugar de uma didática da EF. *Revista Brasileira de Ciências do Esporte*, 28 (2), 21-37.
- Charlot, B. (2009). Ensinar a educação física ou ajudar o aluno a aprender seu corpo-sujeito? In: Dantas Junior, H. S.; Kuhn, R. & Ribeiro, S. D. D. (org.). *Educação Física, esporte e sociedade: temas emergentes*, (pp. 231-246). Editora da UFS.
- Demo, P. (2004). *Pesquisa e construção de conhecimento: metodologia científica no caminho de Habermas*. Tempo Brasileiro.
- Demo, P. (2011). *Pesquisa: princípio científico e educativo*. (14. Ed.). Cortez.
- Fensterseifer, P. E. (2009). Linguagem, hermenêutica e atividade epistemológica na Educação Física. *Movimento*, 15 (4), 243-256.
- Fensterseifer, P. E. (2013). Função da Escola Pública. In: Santiago, A. R. F.; Feil, I. T. S. & Allebrandt, L. I. (Org.). *O curso de Pedagogia da Unijuí – 55 anos*, (pp. 123-147). Editora Unijuí.
- Fensterseifer, P. E. (2020). *A tarefa educacional na especificidade da escola*. Editora Unijuí.
- Gariglio, J. A. (2013). *Fazeres e saberes pedagógicos de professores de Educação Física*. Editora Unijuí.
- González; F. J. & Fraga, A. B. (2012). *Afazer da educação física na escola: planejar, ensinar, partilhar*. Edelbra.
- Habermas, J. (1987). *Teoría de la acción comunicativa*. Taurus.
- Kant, I (2013). *Textos Seletos*. (9. ed.). Vozes,

- Kunz, E. (2014). *Transformação didática-pedagógica do esporte*. (6. ed.). Editora Unijuí.
- Libâneo, J. C. (2000). Educação: pedagogia e didática. O campo investigativo da pedagogia e da didática no Brasil: esboço histórico e buscas de identidade epistemológica e profissional. In: Pimenta, S. G. *Didática e formação de professores: percursos e perspectivas no Brasil e Portugal*, (pp. 77-129). (3. ed.). Cortez.
- Martins, J. S. (2009). *O trabalho com projetos de pesquisa: do ensino fundamental ao ensino médio*. (6. ed.). Papirus.
- Rezer, R. & Fensterseifer, P. E. (2013). Uma orientação hermenêutica para o trabalho docente na educação superior. In: Silva, M. R.; Paim, E. A. & Berticelli, A. (Org.). *Educação em análise: formação de educadores e produção de pesquisas num contexto de desigualdades socioculturais*, (pp. 171-187). Editora UPF.
- Rufino, L. G. B. (2017). As lutas nas aulas de Educação Física no Ensino Médio: possibilidades para a prática pedagógica. In: Darido, S. C. (Org.). *Educação Física no Ensino Médio: diagnóstico, princípios e práticas*, (pp. 323-352). Editora Unijuí.
- Ruedell, A. (2014). Hermenêutica. In: González, F. J. & Fensterseifer, P. E. (Org.). *Dicionário crítico de educação física*, (pp. 349-353). Editora Unijuí.
- Valer, S.; Brognoli, A. & Lima, L. (2017). A pesquisa como princípio pedagógico na Educação Profissional Técnica de Nível Médio para a constituição do ser social e profissional. *Fórum Linguístico*, 4 (4), p. 2.785-2.803.
- Young, M. (2007). Para que servem as escolas? *Educação e Sociedade*, 28 (101), p. 1.287-1.302.

Notes

Preprint:

Previously published as preprint at:
<<https://doi.org/10.1590/SciELOPreprints.5207>> on 12/12/2022.

Submission data:

Submitted for evaluation on December 26, 2022; revised on November 8, 2023;
approved for publication on April 1, 2024.

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Copy Editing services:

Portuguese version - Copy editing and standardization of citations and bibliographical references (7th. Edition APA): Vera Lúcia Fator Gouvêa Bonilha <verah.bonilha@gmail.com.br>

English version: Cia. das Traduções Ltda. <comercial@ciadastraducoes.com.br>

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