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EVOLUTION OF THE TRAINING PROFILE IN PROFESSIONAL PREPARATION IN ADAPTED PHYSICAL ACTIVITY

EVOLUÇÃO DO PERFIL FORMATIVO NA PREPARAÇÃO PROFISSIONAL EM ATIVIDADE FÍSICA ADAPTADA

EVOLUCIÓN DEL PERFIL FORMATIVO EN LA PREPARACIÓN PROFESIONAL EN ACTIVIDAD FÍSICA ADAPTADA

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Abstract: The 2018 National Curriculum Guidelines for Undergraduate Physical Education Programs (DCNEF) introduced, for the first time, the need for professional training focused on working with people with disabilities. This study aims to analyze the Political-Pedagogical Projects (PPCs) implemented before and after the 2018 DCNEF, comparing their conceptual elements and the characteristics of Adapted Physical Activity courses. We conducted a document analysis of 16 PPCs from public Higher Education Institutions (HEIs) belonging to Capes area 21. The term “people with disabilities” became predominant, while “Adapted Physical Education” was the most recurrent name among the courses analyzed. We observed an increase in workload and a shift of most of these courses to the first half of the program, probably as a result of the guidance provided by the new guidelines. Thus, it is concluded that this reorganization can favor students as it may promote a better understanding of human diversity from the beginning of their undergraduate studies.

Keywords: Physical Education professional. People with disabilities. Professional training. Higher education. Curriculum.

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1 INTRODUCTION

In Brazil, courses focused on the study of physical activity for people with disabilities began to be included in the curricula of Physical Education programs, particularly after Resolution 3/87 (Conselho Federal de Educação, 1987b), which established the minimum content and duration requirements for undergraduate Physical Education programs (Bachelor's and/or Full Teaching Degree). This document granted higher education institutions (HEIs) autonomy to design their own curricula and was followed by Opinion 215/87 (Conselho Federal de Educação, 1987a), which provided for the restructuring of undergraduate Physical Education programs, their new characterization, minimum duration and content requirements, and offered suggestions for courses to comprise the program curriculum (Mauerberg-de-Castro, 2011). Since then, courses, whether required or elective, referred to as adapted physical activity, adapted Physical Education, inclusive Physical Education, and their variations, have become part of the required curriculum for Physical Education programs (Lima, 2005; Borella, 2010). In this text, we will use the term Adapted Physical Activity (APA) to refer to the set of courses that address academic training in Physical Education, aimed at preparing students to work with people with disabilities (Rossi-Andrion, Vilaronga, & Munster, 2019; Pedrinelli & Verenguer, 2008).

In undergraduate higher education programs, required courses are those that must be completed as a requirement for graduation; that is, they are fundamental and form the basis of a program's curriculum (Rodrigues *et al.*, 2023). It is also common for other types of courses to be offered, such as electives and/or optional courses. Elective courses are those chosen by the students to enrich their education with an area of interest that is not considered mandatory within their degree program. It is worth noting that there is no legal provision that clearly defines the difference between the terms "optional course" and "elective course"; it is up to the Program Pedagogical Project (PPC, from the Portuguese Projeto Pedagógico de Curso) to provide this definition and establish the list of optional and elective courses for the program (Associação Brasileira de Mantenedoras de Ensino Superior [ABMES], 2012).

In 2004, the first National Curriculum Guidelines for Physical Education Programs (DCNEF) were established. These guidelines set forth specific directives for the teaching degree and the full bachelor's degree in Physical Education, currently referred to as a bachelor's degree (Brazil, 2004). Upon entering the program, students were required to choose between one area of professional training or the other, that is, one geared toward working in school Physical Education or toward providing physical activity instruction in various contexts other than basic education (Borella, 2010).

The most recent DCNEFs, implemented in 2018 (Brazil, 2018), differ from the previous ones by establishing that the Physical Education degree program will

have a single entry point, with a common curriculum during the first two years of the program (i.e., the common phase), followed by the option to choose between a teaching degree or a bachelor's degree after the end of the fourth semester (i.e., the specialized phase). In particular, these DCNEFs propose that preparation for professional intervention with people with disabilities should be included in both the common and specific stages of Physical Education programs, without, however, specifying whether such preparation should take place through a required course, an internship, an extension program, or even by integrating the topic into other courses in the curriculum (Barbosa *et al*., 2023). While this flexibility is desirable because it grants greater autonomy in the decision-making process for developing Physical Education PPCs, it may, in some cases, result in insufficient emphasis on training to address human diversity and, in particular, the needs of people with disabilities.

Studies conducted in the United States have indicated that the contact hours of a single required course have not been sufficient to prepare school Physical Education teachers, who feel unable to work with people with various disabilities (Block *et al*., 2021; McNamara, Wilson, & Lieberman, 2022). Research of this nature has not yet examined the impact of APA courses on the self-efficacy perceptions or attitudes of Physical Education graduates. In turn, a historical absence of disability-related content has been highlighted in American *kinesiology* programs (McNamara *et al*., 2025), which bear considerable similarities to the bachelor's degree in Physical Education in Brazil. Nationally, since their standardization (Brazil, 2004), most bachelor's degree programs in Physical Education have offered at least one required course with content focused on disability, generally in the second half of the program (Borella, 2010; Agapito *et al*., 2021). With the need for curricular reform imposed by the current DCNEFs (Brazil, 2018), this scenario may change, since training for the care of people with disabilities must be present in both core areas. Thus, we speculate that new APA courses may be created or even repositioned within the curriculum, which will need to be verified by comparing the PPCs of Physical Education programs implemented before and after the enactment of these Guidelines.

The PPC is a normative document for undergraduate programs that has the characteristics of a project and provides information about the program's design and structure, as well as its internal regulatory elements, while outlining the profile of the individual/professional it seeks to educate within the context of the society toward which this education is directed (Seixas *et al*., 2013). In the context of public higher education institutions (HEIs), this document must be made available on the institution's website or upon request by interested parties, as provided for in Law No. 12,527/2011 and Decree No. 7,724/2012 (Brazil, 2012), which regulates, within the scope of the federal executive branch, the procedures for ensuring access to information and for classifying information subject to access restrictions, taking into account the level and duration of confidentiality.

Studies on the training of bachelor's degree holders in Physical Education to serve people with disabilities in their various fields of practice (e.g., sports, health, culture, and leisure) are limited and still need to be examined through a joint analysis of teacher-training and bachelor's degree programs. In 2005, Lima analyzed 119 institutions and found that 105 (88.24%) offered courses focused on serving people with disabilities. In 2010, Borella, upon analyzing the curricula of 160 programs, identified that 142 (88.75%) also offered these courses. Data from the following decades point to an increase in the number of APA courses offered, with all state universities in São Paulo (Ferreira *et al*., 2013) and 93.33% of a sample of public universities in northeastern Brazil (Tavares; Fumes, 2021) including this course or a similar one in the curriculum of their Physical Education programs.

Although previous studies have shown that courses related to Adapted Physical Education or Adapted Physical Activity were already present in most Brazilian Physical Education programs, little is known about the actual impacts of the implementation of the 2018 DCNEFs on the curricular organization of these components. In particular, there is little evidence regarding possible changes in contact hours, the timing of course offerings throughout the program, and the terminology adopted by bachelor's degree programs in Physical Education. Considering that the new guidelines now require training for work with people with disabilities in both the core and specialized components, it is important to investigate whether these regulatory changes have been effectively incorporated into the Program Pedagogical Project.

Given the current landscape of APA courses in Physical Education programs and the need to implement the 2018 DCNEFs, which, for the first time, mention the need for training in professional intervention with people with disabilities, this study aims to analyze the PPCs of bachelor's degree programs in Physical Education, comparing elements of the documents before and after the implementation of the 2018 DCNEFs. Specifically, we will investigate the terminology, course nomenclature, semester in which they are offered, status, number, and contact hours of APA courses.

2 METHODS

This study is characterized as qualitative research. The research was classified as a case study, as we will specifically analyze the PPCs of bachelor's degree programs in Physical Education. Case studies have proven effective when the objective is to develop hypotheses and propositions regarding a specific phenomenon (Yin, 2009).

2.1 SAMPLE

We investigated the PPCs of bachelor's degree programs in Physical Education at HEIs belonging to CAPES Area 21. Potential participants were identified in January

2024 based on the list of active graduate programs in Physical Education at HEIs in CAPES Area 21 (n=55), available on the Sucupira Platform (https://sucupira.capes.gov.br/sucupira/public/index.xhtml).

To determine the sample, we adopted the following inclusion criteria: public HEI with stricto sensu graduate programs (master's and/or doctoral degrees) that also offer a bachelor's degree in Physical Education (n=33).

Of the 55 HEIs identified, 22 were excluded from the sample because they offered exclusively professional graduate programs (n=14), offered only a teaching degree in Physical Education (n=2), or were private HEIs (n=6). This sample was selected based on the premise that universities with graduate programs tend to offer higher-quality undergraduate education due to various factors. They have advanced resources and infrastructure, as well as highly qualified faculty active in research. The interaction between undergraduate and graduate students creates a rich and collaborative academic environment. The prestige and reputation of these institutions attract top students and faculty, fostering a cycle of excellence. Furthermore, the continuous development of the curriculum and increased funding tend to contribute to the currency and relevance of the education provided. Additionally, since only six private universities were included, we chose to analyze only public universities because the sample size for public universities is considerably larger than that for private universities.

2.2 DATA COLLECTION

After applying the inclusion criteria, we searched for the PPCs issued before and after the enactment of the 2018 DCNEFs from the 33 identified HEIs. The PPCs were collected from the HEIs' official websites and through internet search engines. When both documents were not available online, we contacted the program coordinators and administrative offices directly via email or telephone between January and May 2024.

For the final analysis, the PPCs from 16 HEIs were included. Seventeen HEIs were excluded for the following reasons: ten were in the process of updating their PPCs; five did not make their PPCs available on their websites and did not respond to our attempts to contact them; one provided only the most recent version of the PPC; and one HEI made both documents available; however, in the curriculum prior to the enactment of the 2018 DCNEFs, the HEI offered only a teaching degree program with a pathway to a bachelor's degree, in which students were required to first complete the teaching degree before pursuing the bachelor's degree; therefore, it was excluded from the study since an exclusive bachelor's degree program was not possible. Chart 1 presents the study sample.

Chart 1 - HEIs with PPCs prior to and after the enactment of the 2018 DCNEFs.

Higher Education Institution	PPC Year
Faculdade de Educação Física e Fisioterapia - Universidade Federal do Amazonas (UFAM - AM)	2006 | 2023
Faculdade de Educação Física - Universidade de Brasília (UnB - DF)	2015 | 2022
Faculdade de Educação Física e Dança - Universidade Federal de Goiás (UFG - GO)	2013 | 2021
Faculdade de Educação Física e Desportos - Universidade Federal de Juiz de Fora (UFJF - MG)	2014 | 2022
Instituto de Ciências da Saúde - Universidade Federal do Triângulo Mineiro (UFTM - MG)	2013 | 2024
Departamento de Educação Física - Universidade Federal de Viçosa (UFV - MG)	2019 | 2022
Faculdade de Educação Física - Universidade Federal do Mato Grosso (UFMT - MT)	2011 | 2023
Centro de Educação Física e Esporte - Universidade Estadual de Londrina (UEL - PR)	2015 | 2021
Departamento de Educação Física - Universidade Estadual de Maringá (UEM - PR)	2015 | 2022
Departamento de Educação Física - Universidade Federal do Paraná (UFPR - PR)	2014 | 2023
Escola Superior de Educação Física e Fisioterapia - Universidade Federal de Pelotas (UFPEL - RS)	2015 | 2023
Faculdade de Educação Física - Universidade Estadual de Campinas (UNICAMP - SP)	2016 | 2022
Faculdade de Ciências e Tecnologia - Universidade Estadual Paulista Júlio de Mesquita Filho, Presidente Prudente (UNESP PP - SP)	2015 | 2022
Instituto de Biociências - Universidade Estadual Paulista Júlio de Mesquita Filho, Rio Claro (UNESP RIO CLARO - SP)	2017 | 2022
Escola de Educação Física e Esporte - Universidade de São Paulo (USP - SP)	2015 | 2023
Escola de Educação Física e Esporte de Ribeirão Preto - Universidade de São Paulo, Ribeirão Preto (USP RP - SP)	2016 | 2022

Source: prepared by the author.

2.3 DATA ANALYSIS

The process of analyzing the PPCs was guided by document analysis. Document analysis is a systematic procedure that can be used to track changes and developments by comparing different versions of a document (Bowen, 2009). The process involves stages of skimming, close reading, and textual interpretation and was combined with the content analysis technique. In content analysis, we organized the information into categories relevant to the central research questions, facilitating the understanding and evaluation of the collected data (Stemler, 2000). Document analysis constituted the primary methodological strategy for investigating the PPCs. The documents were understood as institutional records capable of expressing conceptions of professional education, curricular choices, and pedagogical guidelines related to training for working with people with disabilities. Comparing versions of the PPCs developed before and after the implementation of the 2018 DCNEFs allowed us to identify changes, continuities, and trends in the curricular organization of the programs under investigation, thereby justifying the use of document analysis as the central procedure for data production and interpretation.

The analytical categories were defined by adapting the proposal by Seixas *et al*. (2013) to the context of Physical Education. Thus, the PPCs were examined by considering both aspects related to the theoretical and pedagogical foundations expressed in the documents and elements linked to the curricular organization of courses focused on APA. This procedure made it possible to systematize the information in a way that allowed for comparison across different institutions and between the periods before and after the implementation of the 2018 DCNEFs. The findings were structured according to blocks 1 and 2, as proposed by Seixas *et al*. (2013):

- Block 1 - Theoretical, philosophical, and pedagogical foundations: in addition to the elements mentioned in the name of this block, we can consider topics involving the profile of graduates and their educational process, which justify curriculum planning and other pedagogical activities. In this study, information identified in this block included terminology related to people with disabilities and the nomenclature of APA courses.
- Block 2 - Curricular emphases and courses: focusing primarily on program content, this block considers the knowledge base provided and the distinctive characteristics of each course according to the program in which it is offered. In this study, information identified in this section included the ideal time frame for offering APA courses (as presented in the curriculum grids found in the PPCs), their status (required or elective), and their semester contact hours.

3 RESULTS

Below, we present the results of the comparative analysis of the PPCs. Taking into account the proposal by Seixas *et al*. (2013), in Block 1, we describe the terminology and nomenclature of courses identified in the PPCs. In Block 2, we present the findings regarding the semester in which the course appears in the curriculum, the course status, and the semester contact hours.

3.1 TERMINOLOGY

Regarding the way in which people with disabilities were referred to in the 16 PPCs analyzed, prior to the 2018 DCNEFs, half of them used the term “people with disabilities,” 25% used “persons bearing disability(ies),” 12.5% used “individuals with special needs,” 6.3% referred only to “disabilities,” and 6.3% made no reference to this group of people.

Following the implementation of the 2018 DCNEFs, it was observed in the PPCs that in 93.8% of cases, the only term used was “people with disabilities,” and in only 6.3% was the term “individuals with special needs” used.

3.2 COURSE NOMENCLATURE

We found that the term “Adapted Physical Education” was the most prevalent among the required courses in the PPCs (pre-2018 = 43%; post-2018 = 44%, Table 1). In addition, other terms related to adapted/Paralympic sports appeared among the elective courses (Table 2).

Table 1 - Nomenclature of required courses.

Nomenclatures Prior to the 2018 DCNEFs	n	%	Nomenclatures Following the 2018 DCNEFs	n	%
Adapted Physical Education	9	43	Adapted Physical Education	11	44
Physical Education for People with Disabilities	2	10	Inclusive Physical Education	2	8
Sports for People with Disabilities	2	10	Adapted Physical Activity	1	4
Leisure Activities for People with Disabilities	1	5	Physical Activity and People with Disabilities	1	4
Adapted Physical Activity	1	5	Physical Education and Adapted Motor Activity	1	4
Physical Activities for People with Disabilities	1	5	Inclusive Physical Education and Diversity	1	4
Physical Education for People with Sensory-Motor Disabilities	1	5	Physical Education for People with Disabilities	1	4
Adapted Sports	1	5	Physical Education for People with Sensory-Motor Disabilities	1	4
Sports and Disabilities	1	5	Physical Education, Inclusion, and Difference	1	4
Introduction to Adapted Physical Education	1	5	Adapted Sports	1	4
Research and Teaching in Physical Education, Inclusion, and Diversity	1	5	Sports and Disabilities	1	4
			Paralympic Sports	1	4
			Fundamentals of Adapted Physical Education and Human Diversity	1	4
			Prescription of Physical and Sports Activities for People with Disabilities	1	4
Total	21	100		25	100

Source: survey data.

Table 2 - Nomenclature of elective courses.

Nomenclatures Prior to the 2018 DCNEFs	n	%	Nomenclatures Following the 2018 DCNEFs	n	%
Adapted Physical Education	2	50	Sports and Disabilities	1	17
Sports and Disabilities	1	25	Motor Assessment in People with Disabilities	1	17
Training Applied to Paralympic Sports	1	25	Teaching Methodology for Paralympic Sports	1	17
			Adapted Physical Education III	1	17
			Olympic and Paralympic Studies	1	17
			Adapted Sports	1	17
Total	4	100		6	100

Source: survey data.

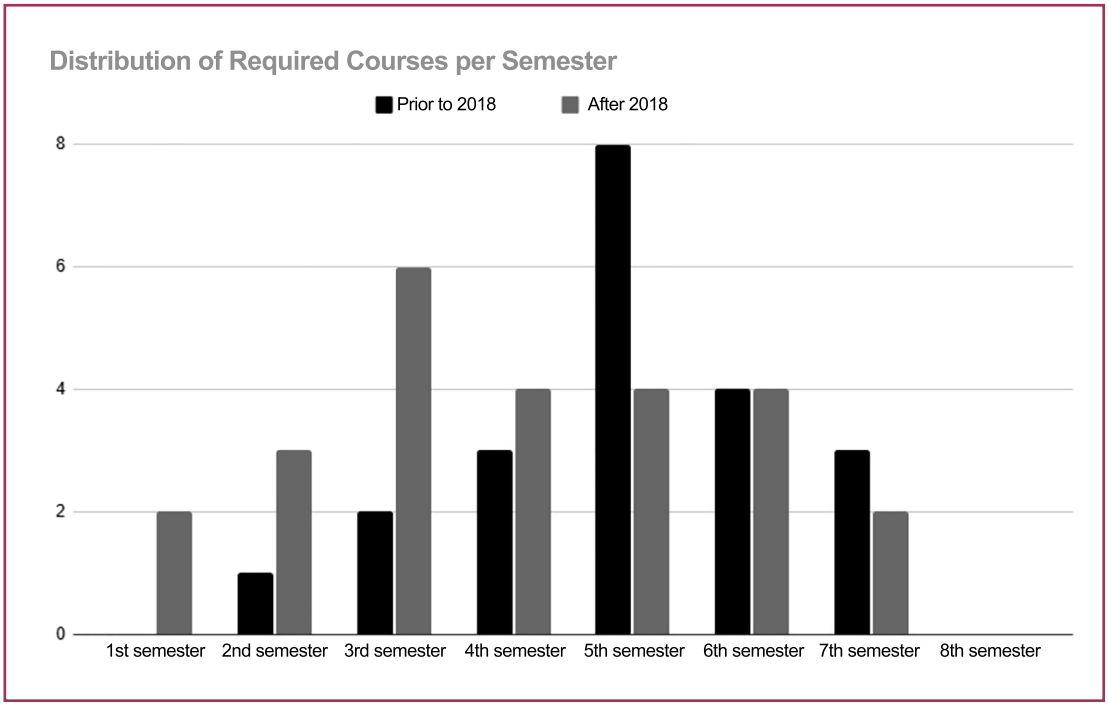
3.3 COURSE STATUS AND OFFERING

In the PPCs prior to the 2018 DCNEFs, 25 courses were identified, of which 21 were required and four were electives. Following the 2018 DCNEFs, we observed 31 courses, of which 25 were required and six were electives. Consequently, there was a 19.05% increase in the number of required courses and a 50% increase in the number of electives focused on serving people with disabilities in the curricula of the programs examined.

3.4 TIMING OF REQUIRED COURSE OFFERINGS IN THE CURRICULUM

In the PPCs prior to the 2018 DCNEFs, we observed a high incidence of courses offered starting in the 5th semester (n = 15, 71.43%). In the PPCs following the 2018 DCNEFs, 60% of the required courses were offered in the first half of the program. Half of the HEIs offered APA courses in both core areas, while 37.5% offered them only in the common core and 12.5% only in the specific core (Figure 1).

Figure 1 - Distribution of required courses per semester in PPCs prior to and after the 2018 DCNEFs.



Source: survey data.

3.5 COURSE CONTACT HOURS

An analysis of the PPCs implemented before and after the 2018 DCNEFs revealed a 14.31% increase (1,167 hours vs. 1,334 hours) in the contact hours of required courses focused on training for serving people with disabilities, when comparing the two periods. As a result, these contact hours now account for 2.57% of the total program hours, compared to the 2.19% observed in the PPCs prior to 2018.

We also observed a change in the distribution of contact hours for required courses offered from the first to the fourth semester (427 [34%] vs. 806 [66%])

compared to those offered from the fifth to the eighth semester (740 [58%] vs. 528 [42%]), respectively. Analyzing the average contact hours for the set of required courses per program, the PPCs prior to the 2018 DCNEFs showed an average of 64.83 hours (± 26.07 hours), with a minimum of 25 contact hours and a maximum of 68 hours; and after the implementation of the 2018 DCNEFs, it was 74.11 hours (± 26.14 hours) with a minimum of 30 hours and a maximum of 60 hours.

With regard to elective courses, an analysis of the PPCs implemented before and after the 2018 DCNEFs revealed a 15.71% increase (210 hours vs. 243 hours) in the contact hours for courses focused on training to serve people with disabilities, when comparing the two periods. The average number of semester contact hours observed in the PPCs prior to the 2018 DCNEFs was 52.50 hours (± 15 hours), and the average number of semester contact hours observed in the PPCs after the implementation of the 2018 DCNEFs was 40.50 hours (± 12.54 hours). The minimum number of semester contact hours offered in both the earlier and later versions was 30 hours, and the maximum was 60 hours.

4 DISCUSSION

In this study, we analyzed the Program Pedagogical Projects (PPCs) of bachelor's degree programs in Physical Education at Brazilian public universities, specifically examining the profile of courses designed to prepare students for professional intervention with people with disabilities. Our main findings show an increase in the contact hours for these courses, both required and elective, when comparing the periods before and after the implementation of the 2018 DCNEFs; furthermore, they show that required courses now predominate in the first half of the program (core curriculum). We observed that "Adapted Physical Education" is the most prevalent term among the courses analyzed and that currently the term "people with disabilities" is the most commonly used in the PPCs to refer to this group of people. The predominance of this terminology suggests the continuation of a well-established academic tradition in the Brazilian context. Although the international debate is expanding the use of the concept of APA due to its more comprehensive nature (Federação Internacional de Atividade Física Adaptada [IFAPA], 2026), the results indicate that Brazilian institutions continue to adopt nomenclature historically linked to Physical Education training.

According to the 2018 DCNEFs, training for professional intervention with people with disabilities must be included in both stages and in both bachelor's and teaching degree programs. This is the first time that a Physical Education program guideline addresses the need for undergraduate programs to include content addressing services for people with disabilities, particularly distributed across the core and specialized components. Although the guidelines do not specify that such training must occur exclusively through required or elective courses, we have observed a shift in the timing of APA course offerings.

Data from the first decade of the 21st century indicated that around 80% of these courses were offered in Physical Education programs (bachelor's and teaching

degree) during the second half of the program, with the highest concentration in the fifth and sixth semesters (Borella, 2010). Findings from the late 2010s already indicated a trend toward this shift, showing that 67% of these courses were scheduled from the fifth to the eighth semesters of bachelor's degree programs (Agapito *et al*., 2021), which aligns with the findings of this study (71%). Our findings expand upon those in the literature, as they not only confirm the continued presence of APA courses in Physical Education curricula but also highlight a curricular reorganization likely resulting from the implementation of the 2018 DCNEFs.

To the best of our knowledge, our study is the first to demonstrate the actual implementation of this transition and to provide a comparison between successive versions of the PPCs. Based on a qualified sample, the data show that approximately 60% of the required courses and their corresponding contact hours are included in what is now referred to as the "common core", that is, from the first to the fourth academic semester, indicating a likely influence of the text proposed in the 2018 DCNEFs.

In addition to this new distribution of courses, an increase of approximately 15% in the total contact hours for required and elective courses was also observed. This increase stems from the fact that three institutions (UFPR, UFJF, and UEM) began offering a second required course, one institution (USP RP) changed the status of one of its courses from elective to required, and three other institutions (UFG, UFPR, and UFPEL) began offering elective courses in their curriculum. Although the identified increase in contact hours is relatively modest, it suggests an institutional trend toward valuing education for working with people with disabilities. This finding aligns with international discussions that have highlighted the need to expand educational opportunities related to disability in undergraduate programs, both through specific courses and by broadening academic experiences related to the topic (Block *et al*., 2021; McNamara *et al*., 2025).

Thus, by having greater exposure to content and experiences related to disability, especially early in their education, students could identify more closely with the topic, consider it as a potential professional field (An, 2021), or even seek out research opportunities and pursue graduate-level education.

Although the 2018 DCNEFs constitute the regulatory framework directly related to the curricular reorganization observed in Physical Education programs, their development took place within a broader context of strengthening inclusive policies in Brazil. In this regard, it is worth highlighting the enactment of the Brazilian Law on the Inclusion of Persons with Disabilities (Law No. 13,146/2015), which incorporated the principles of the Convention on the Rights of Persons with Disabilities into Brazilian law and reinforced the understanding of disability as arising from the interaction between impairments and social, environmental, and attitudinal barriers (Brazil, 2015). Furthermore, Article 28, item XIV, of this Law mandates the inclusion of content related to people with disabilities in higher education courses, while respecting the specific characteristics of the various fields of knowledge. Although Resolution CNE/CES No. 6/2018 does not establish an explicit link to Law No. 13,146/2015, it is reasonable to

assume that the strengthening of the inclusive paradigm, the guarantee of rights, and the need to incorporate this content into higher education influenced the process of formulating the new curriculum guidelines.

This interpretation is supported by contemporary discussions on disability and professional education. Haegele and Hodge (2016) argue that the field of APA has historically been influenced by the medical model of disability, in which individual limitations played a central role in understanding social participation. However, the authors highlight that more recent perspectives have shifted the focus to the social, environmental, and attitudinal barriers that restrict the participation of people with disabilities. From this perspective, the increased presence, earlier placement, and recognition of courses related to Adapted Physical Education in the PPCs analyzed, as well as the adoption of terminology aligned with the rights of people with disabilities, can be interpreted not only as a normative alignment with the 2018 DCNEFs, but also as a reflection of broader epistemological, legal, and social transformations that have increasingly demanded professional training committed to the inclusion, accessibility, and social participation of people with disabilities.

In the international context, there has historically been a lack of disability-related content in undergraduate *kinesiology* programs (McNamara *et al*., 2025), which share similar characteristics with the bachelor's degree in Physical Education offered in Brazil. One possible solution proposed to address this gap involves the infusion of content on disabilities into core courses within the program's curriculum. Ideally, this proposal would be appropriate and could foster a more inclusive perspective on human diversity. By administering a questionnaire to 75 faculty members in Physical Education Teacher Education (PETE) programs, which are similar to the Physical Education degree in Brazil, Kwon (2018) found that 74% of the faculty reported using the infusion approach in their courses. This practice was observed particularly in the courses on exercise physiology, motor development, and biomechanics, with the most commonly employed methods being the provision of examples, discussions, and laboratory exercises. Although this approach shows promising results, the infusion of APA content into courses has not yet been observed in bachelor's degree programs.

In Brazil, we are unaware of any study that has analyzed this infusion proposal, and this may be explained by the fact that bachelor's degree programs have progressively included, in their curricula, required and elective courses focused on training to serve people with disabilities. As observed with the required courses, our results indicate an increase in elective courses and their respective contact hours. We view this as a positive development, as it enables undergraduate students with a particular interest in the subject to deepen their studies and better prepare themselves for the future challenges of working with people with disabilities. Another pattern observed across all the HEIs analyzed is that none of them offer only elective courses.

Internationally, the term "Adapted Physical Activity" has been defined as a profession, an academic discipline, a service delivery system, or a program that encompasses opportunities for physical activity and sports for people with disabilities

(McNamara *et al*., 2025; IFAPA, 2026). In this regard, given that several Brazilian researchers participate in international events, one might expect the term APA to be the preferred term, particularly in the context of bachelor's degree programs in Physical Education. However, our study aligns with others (Borella, 2010; Agapito *et al*., 2021), indicating a consolidation of the use of the term "Adapted Physical Education" nationally (11/25), while the term "APA" appears in only one of the PPCs. It is worth noting that IFAPA establishes that the term "Adapted Physical Education" would be appropriate for use in an educational context, that is, in Physical Education teacher-training programs. Elective courses demonstrated a greater variety of terminology, featuring terms such as "sport" and "Paralympic." This may be a strategy to reflect a narrowing of the focus of these courses, given that a required course attempts to cover a wide range of APA content within its contact hours; thus, in an elective course, a greater focus on a specific area is expected, which may (or may not) be reflected in its course title.

Traditionally, professional training and practices related to APA have been strongly influenced by the medical model, which viewed disability primarily as an individual condition to be corrected, treated, or compensated for, and by corrective Physical Education, which focused on correcting skeletal or physical defects (Mauerberg-deCastro *et al*., 2016). Added to this is the fact that most research still focuses on the disabled body as something to be studied; few studies focus on the social construction of disability and the body and on the application of the social minority model to individuals with disabilities (DePauw, 2022). In this sense, the increased use of the term "person with a disability," as well as the expansion and inclusion of disability-related content in the curricula analyzed, may reflect a shift toward Physical Education courses adopting perspectives grounded in inclusion, social participation, and the guarantee of rights.

Thus, a relevant topic for analysis is how the PPCs refer to people with some form of impairment, "which, in interaction with one or more barriers, may hinder their full and effective participation in society on an equal basis with others," as expressed in the Brazilian Inclusion Law (Brazil, 2015). The use of the term "person with a disability" is now required as part of a movement to adopt more respectful and inclusive terminology when referring to individuals with some form of disability. This term gained particular prominence following the 2006 UN Convention on the Rights of Persons with Disabilities and was formally adopted in Brazil with the enactment of Decree No. 6,949/2009, which ensures the implementation and enforcement of the convention's provisions.

However, certain groups prefer to use other terms to refer to their condition. Thus, specific terms have been preferred by certain communities of people with disabilities who assert that their disability is a central and significant aspect of their identity, involving intersubjective experiences associated with feelings of belonging, acceptance, and the values of a specific group (e.g., people who are deaf prefer to be called "Deaf," with a capital D) (Haegele; Maher, 2023). In some cases, certain groups have reclaimed terms previously used pejoratively against them to define themselves, such as people who were called *"crip*." It is important to note that not all members of a given group feel comfortable with the use of these terms (Spencer; Peers; Eales, 2020).

5 LIMITATIONS

There are some limitations to this study that should be considered. First, in our document analysis based on Seixas *et al*. (2013), we used only two of the three blocks they presented. This is because block three deals with the analysis of course descriptions and the description of professional practices, data that were not collected for this study. We did request that a form be filled out with information on the course syllabi, but the response rate was low, with only three responses from the 36 faculty members contacted, so we chose not to use these data. We decided to send emails requesting these syllabi from faculty members rather than collecting them from institutional websites, since syllabi tend to be subject to frequent changes by faculty members (McNamara *et al*., 2022), so we could obtain access to their most recent versions. Additionally, a national strike by technical and administrative staff in education occurred in the middle of our study, which ultimately interfered with our attempts to contact some HEIs to obtain access to the PPCs. Finally, we highlight as a limitation the inability to analyze all the PPCs in our sample, which could have provided a more accurate picture of the APA landscape in bachelor's degree programs in Physical Education. We collected and analyzed less than half of the PPCs initially proposed, due to factors such as HEIs that had not yet completed the implementation of PPCs following the 2018 DCNEF and strikes that occurred at some federal institutions, which made it impossible to obtain updated versions of the PPCs through administrative offices when they were not available on institutional websites.

6 FUTURE STUDIES

Based on our findings, future studies could examine whether students' exposure to APA topics, which are now more prevalent at the beginning of their undergraduate studies, impacts their training in the field, observing whether there is an increase in interest in scientific training and professional practice among graduates of bachelor's degree programs in Physical Education.

The PPC analysis proposed by Seixas *et al*. (2013) can also be used in its entirety, that is, including the analysis of course syllabi or course descriptions obtained directly from APA course instructors, since those available on institutional websites may not represent the most recent version of the syllabus, given its fluid nature and ongoing refinement (McNamara *et al*., 2022). In addition, semi-structured interviews can be conducted to understand the rationale behind the content choices and teaching strategies adopted by instructors (McNamara *et al*., 2022; Wilson, McNamara, & Lieberman, 2022). Currently, active learning methods have been recognized as more effective for teaching the new generation of higher education students (Freeman *et al*., 2014; Kozanitis; Nenviovici, 2023; Furtado; Haegele; Gaspar, 2026), and their use in APA courses, in our view, warrants further investigation.

7 FINAL CONSIDERATIONS

The objective of this study was to analyze the PPCs for bachelor's degree programs in Physical Education before and after the implementation of the 2018 DCNEFs, comparing terminology, nomenclature, contact hours, status, and offering periods of courses related to APA.

The results of the comparative analysis between the Physical Education PPCs before and after the implementation of the 2018 DCNEFs indicate significant changes in the approach to training for professional intervention with people with disabilities. Our results demonstrate an increase in the contact hours allocated to these courses, both required and elective, a greater prevalence of the term "people with disabilities" throughout the PPCs, and the predominance of "Adapted Physical Education" as the course nomenclature.

The redistribution of required courses to the first semesters of the program and the increased offering of elective courses represent important advances in the curriculum structure. This reorganization may promote a more integrated and early education, allowing students to develop a deeper understanding of human diversity from the start of their undergraduate studies. Furthermore, the diversification of elective courses offers opportunities for specialization and in-depth study in specific areas, thereby fostering the development of professionals with a greater affinity for and engagement in the field.

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Resumo: As Diretrizes Curriculares dos Cursos de Educação Física (DCNEF) de 2018 abordam, pela primeira vez, a necessidade de formação para intervenção profissional junto às pessoas com deficiência. Este estudo tem como objetivo analisar os Projetos Pedagógicos de Curso (PPCs) implantados antes e após as DCNEFs de 2018, comparando seus elementos conceituais e características das disciplinas de Atividade Física Adaptada. Realizamos uma análise documental de 16 PPCs de Instituições de Ensino Superior (IES) públicas pertencentes à área 21 da Capes. Observamos que o termo "pessoa com deficiência" passa a ser predominante nos documentos, enquanto que Educação Física Adaptada é a nomenclatura mais recorrente dentre as disciplinas analisadas. Identificamos aumento na carga horária e o deslocamento da maioria destas disciplinas para a primeira metade do curso, provavelmente em decorrência das orientações das novas diretrizes. Dessa forma, concluiu-se que essa reorganização pode favorecer aos estudantes uma formação com compreensão sobre a diversidade humana desde o início da graduação.

Palavras-chave: Profissional de Educação Física. Pessoas com deficiência. Formação profissional. Ensino superior. Currículo.

Resumen: Las Directrices Curriculares Nacionales de 2018 para los programas de Educación Física introdujeron, por primera vez, la necesidad de una formación profesional centrada en la actuación con personas con discapacidad. Este estudio tiene como objetivo analizar los Proyectos Político-Pedagógicos (PPCs) implementados antes y después de las DCNEF de 2018, comparando sus elementos conceptuales y las características de las asignaturas de Actividad Física Adaptada. Realizamos un análisis documental de 16 PPCs de Instituciones de Educación Superior (IES) públicas pertenecientes al área 21 de Capes. El término "personas con discapacidad" se volvió predominante, mientras que "Educación Física Adaptada" siguió siendo el título más utilizado para estas asignaturas. Se observó un aumento en la carga horaria y el desplazamiento de la mayoría de estas asignaturas hacia la primera mitad del curso, probablemente como consecuencia de las orientaciones de las nuevas directrices. Así, se concluye que esta reorganización puede beneficiar a los estudiantes al favorecer una mejor comprensión de la diversidad humana desde el inicio de su formación universitaria.

Palabras clave: Profesional de Educación Física. Personas con discapacidad. Formación profesional. Educación superior. Currículo.

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CONFLICT OF INTEREST

The authors declare that this work involves no conflict of interest.

AUTHOR CONTRIBUTIONS

Adriano Camargo Cavallari: Conceptualization, Data Curation, Methodology, Writing – Original Draft, Writing – Review & Editing.

Ciro Winckler: Conceptualization, Writing – Review & Editing.

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RESEARCH ETHICS

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AVAILABILITY OF RESEARCH DATA

The research data are available in the body of the document.

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