



TRAINING FOR SPORTS IN AN INTERNATIONAL CONTEXT: WHAT DO THE STUDIES SAY AND WHAT IS BRAZIL'S PLACE?

FORMAÇÃO PARA O ESPORTE EM CONTEXTO INTERNACIONAL: O QUE DIZEM OS ESTUDOS E QUAL O LUGAR DO BRASIL?

FORMACIÓN PARA EL DEPORTE EN UN CONTEXTO INTERNACIONAL: ¿QUÉ DICEN LOS ESTUDIOS Y CUÁL ES EL LUGAR DE BRASIL?

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Abstract: The aim of this study is to map and analyze how the debate, in circulation in scientific journals, about the training of professionals to work in sports is constituted, understanding the bibliometric characteristics and the contents of the works in an international scenario, as well as Brazil's place in this process. It is of a qualitative nature and of the state of the knowledge type, based on the precepts of the critical-documentary analysis and of the evidential paradigm. We identified 64 articles, published in 39 journals, between 1979 and 2019. Twenty-two articles have international insertion and English journals have greater impact and concentration. The contents point to two groups of articles: 1) general issues related to sports and training, its different facets and perspectives; 2) relationship between these training practices and fields of action. The training that qualifies the sports professional is diversified. This leads us to reflect on the way sport is dealt with in different countries.

Keywords: Training; Sport; Physical Education; Professional field; Academic production.

Resumo: Este artigo objetiva mapear e analisar como se constitui o debate, em circulação nos periódicos científicos, sobre a formação de profissionais para atuar no esporte, compreendendo as características

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bibliométricas e os conteúdos dos trabalhos em um cenário internacional, bem como o lugar do Brasil nesse processo. De natureza qualitativa e do tipo estado do conhecimento, fundamenta-se nos preceitos da análise crítico-documental e do paradigma indiciário. Identificamos 64 artigos, publicados em 39 periódicos, entre 1979 e 2019. 22 artigos possuem inserção internacional e as revistas inglesas possuem maior impacto e concentração. Os conteúdos apontam dois grupos de artigos: 1 - questões gerais relacionadas com o esporte e a formação, suas diferentes facetas e perspectivas; 2 - relação entre essas práticas formativas e os campos de atuação. A formação que habilita o profissional do esporte é diversificada. Isso leva a refletir sobre a maneira como o esporte é tratado nos diferentes países.

Palavra-chave: Formação; Esporte; Educação Física; Campos de atuação; Produção acadêmica.

Resumen: Objetiva mapear y analizar cómo se constituye el debate, en circulación en las revistas científicas, sobre la formación de profesionales para actuar en el deporte, comprendiendo las características bibliométricas y los contenidos de los artículos en un escenario internacional, bien como el lugar de Brasil en ese proceso. De naturaleza cualitativa y del tipo estado del arte, se fundamenta en los preceptos del análisis crítico-documental y en el paradigma indiciario. Identificamos 64 artículos, publicados en 39 revistas, entre 1979 y 2019. De ellos, 22 artículos tienen inserción internacional y las revistas inglesas tienen mayor impacto y concentración. Los contenidos muestran dos grupos de artículos: 1 – cuestiones generales relacionadas con el deporte y la formación, sus diferentes facetas y perspectivas; 2 – relación entre esas prácticas formativas y los campos de actuación. La formación que capacita al profesional del deporte es diversificada. Eso lleva a reflexionar sobre la manera en que el deporte es tratado en los diferentes países.

Palabras clave: Formación. Deporte. Educación Física. Campos de actuación. Producción académica.

1 Introduction

The discussions about sports are multifaceted and the interpretations about what is this phenomenon and what is its role are developed with a theoretical and conceptual polysemy (PUIG; HEINEMAN, 1991). Conceptually, it is broad, complex and refers to a series of activities and processes that are associated with various factors (BAILEY, 2007).

As societies change, advance and re-signify their practices, we increasingly question sport and its polysemy, understanding that discussions about “its concepts” must always take into account its historical and cultural development. No wonder “Sport [was] considered one of the most important socio-cultural phenomena [in] the end of the 20th century” (TUBINO, 2006, p. 05). In this way, we understand that the sports phenomenon is broad, permeates several fields and, among these, we highlight the training of professionals to work with sport, especially in a non-school context.

Milistetd *et al.* (2016) investigated the organizational structure of training courses offered by different federations and by the Brazilian Academy of Coaches (ABT), aiming at specific

training to work with high-performance sport. The authors point out that there are differences between the curricular organization of classification and the levels of formation of the federations. In addition, ABT's programs focus on training athletes and performance teams, especially on the correlation with Olympic sports, as this is an initiative of the Brazilian Olympic Committee.

Along the same lines, Trudel, Milistetd and Culver (2020) carry out an "overview" type review of higher education programs for sports coaches between 2000 and 2018. The authors point out that there are few studies of this nature that serve as examples for other research on the topic. In the 38 articles analyzed, they demonstrate that it is necessary to consider the importance of the life experiences of students and future coaches, the preparation for a practice that is reflexive and the complexity of training stages. Similar results were also found by Ciampolini *et al.* (2019) in a study on training programs for coaches published in English language journals between 2009 and 2016.

Izquierdo (2016) identifies, in Spain, the existence of higher education for professionals working in physical activity and sport. However, it reveals a worrying scenario in that 38% of respondents (2,500 professionals) work without initial training and many who have academic training do not perform the function for which they were titled.

In Italy, Maulini, Aranda and Cano (2015) point out that higher education programs at faculties of Motor Science are responsible for meeting the necessary training needs of the professional who works with sports in the country (sports educator). In Greece, Laios (2005) states that there is an educational system for training coaches, carried out by higher education in Physical Education (PE), by coach schools or international schools.

Wang, Thijs and Glanzel (2015) emphasize the importance of conducting review studies in the area of Sports Science, especially those that propose to analyze the international context. For these authors, there should be a relationship between the contents of the studies, the authorship collaborations and the impact of citations.

Gama, Ferreira Neto and Santos (2021), in a study of the state of knowledge type, analyzed the authors and collaboration networks that have been dedicated to studying the theme of training to work in sport in an international context. As the authors expose, the production on the subject is pulverized, since 64 articles from 25 countries were mapped.

Another point highlighted by them is the need to strengthen collaboration networks between authors, countries and institutions in order to promote internationalization policies in the area. In addition, it is essential "[...] to establish a field of discussions with continuity in research about training to work in sport in a non-school context" (GAMA; FERREIRA NETO; SANTOS, 2021, p. 15).

In this article, we aimed to map and analyze how the debate, circulating in the scientific journals of the area, about the training of professionals to work in sport and its manifestations is constituted, understanding the bibliometric characteristics and the contents of the articles in an

international scenario, as well as Brazil's place in this process.

Thus, we ask: how is the production flow of the articles over the years and in which journals and countries are they published? Is there internationalization in the publications? What are the main characteristics and contents of the studies carried out? How does Brazil present itself in this context?

2. Methodology

It is a qualitative research of mapping academic production of the state of knowledge type (ROMANOWSKI; ENS, 2006), in journals until the year 2019. It is based on the precepts of critical-documental analysis (BLOCH, 2001) (questioning the texts) and the evidential paradigm (GINZBURG, 2007) (capturing the indications in the clues and signs of the sources). This type of research allows establishing an overview of what has been produced "[...] and an order that allows interested parties to perceive the evolution of research in the area, as well as its characteristics and focus, in addition to identifying the gaps that still exist" (ROMANOWSKI; ENS, 2006, p. 41).

Specifically, state of knowledge studies describe the distribution of scientific production on an object, through approximations established between contextual elements and a set of other variables, such as publication date, themes and journals. The journal, in this case, constitutes itself as a source making it possible to understand the "[...] thematic predominance or recurrence and information about producers [...]" (CATANI; SOUSA, 1999, p. 11).

For this, we performed two search movements, namely: a) search for articles with descriptors in English in the Web of Science, Scopus and SPORTDiscus databases; b) search for articles with descriptors in Spanish in the SciELO and IRESIE databases. In each database, the query was developed with the same descriptors, but using different settings and their own languages, as specified in Tables 1 and 2. The selection of texts was carried out considering those that were related to the theme from the titles, abstracts and keywords.

Table 1 – Use of English descriptors in the databases

Databases	Descriptors
Scopus Web of Science e SPORTDiscus	Training “physical education” and sport and “higher education”
	Training “physical education” and sport and formation
	“Coach training” and sport
	“Coach education” and sport

Source: Prepared by the authors.

Table 2 – Use of Spanish descriptors in the databases

Databases	Descriptors
SciELO e IRESIE	“Formación de entrenadores”
	“Formación en educación física” and deporte

Source: Prepared by the authors.

We included only Open Access articles that were available in their entirety. To help

organize and manage the data, we used the software Mendeley version 1.19.5.⁴

From the first search movement, we located a total of 488 articles: 208 in SPORTDiscus, 189 in Scopus, and 91 in Web of Science. After reading the titles, we obtained a first selection of articles organized in folders by Mendeley. With the Spanish descriptors, we found 56 texts in SciELO and 291 in IRESIE, totalling 347 articles. With the help of Mendeley, we eliminated duplicate texts from the different databases.

To refine the mapped articles, we read the titles and abstracts and, after selecting those that were directly related to the studied object, we reached a final number of 64 articles, published in 25 countries, in the temporal delimitation between 1979 and 2019.

As an aid in the analysis and graphical presentation of data, we used the software Microsoft Excel 2010 version and Gephi version 0.9.2.⁵ Both Excel and Gephi helped us in the elaboration of Figure 1. We also used the text analysis software *Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires* (Iramuteq), version 0.7 alpha 2, a program that allows us to carry out statistical analyses with qualitative variables of texts that have a basic lexical field (CAMARGO; JUSTO, 2013; SALVIATI, 2017).

The data presentation, in this case, was performed with a word cloud (Figure 2), a tool that organizes the vocabulary in a clear and more visually comprehensible way. In our case, with the titles and abstracts of the 64 articles, all standardized in English. We selected the terms with a minimum co-occurrence of three to compose the final figure.

As for the sources, we were not interested in judging them, but in questioning them, understanding them as culturally constructed artifacts and full of intentionalities (BLOCH, 2001). Methodologically, our analyzes were constituted with the help of softwares, however, we agree with Salviati (2017, p. 5) when stating that “[...] the user must keep in mind that the automatic analysis presents generic results that indicate paths to be explored and interpreted manually”.

3. Analysis and discussion of the results

3.1 Bibliometric characteristics of the articles

A first analysis to be made concerns the production flow of the articles we have located. It “[...] must be long enough so that all journals have the same opportunity to contribute articles” (LOUSADA *et al.*, 2012, p. 8). Thus, we noticed that they were published between the years 1979 and 2019, with a hiatus of productions between 1995 and 2003, establishing continuity from 2005.

Possibly the studies on training to work with sports were pioneered in the Soviet (especially the Russian) and German contexts. Our findings indicate that the first publication

⁴ Software used to manage and share research documents. It was developed for desktop and is also available for online use on the internet (YAMAKAWA *et al.*, 2014, p. 169).

⁵ Gephi is an open-source network exploration software. The modules developed can import, visualize, specialize, filter, manipulate and export all types of networks (BASTIAN; HEYMANN; JACOMY, 2009).

located in the database, dated 1979, it is the article “Professional Training in Physical Education in the USSR”, by English author James Riordan, a former soccer player who played for many years in Russia, as a player at Football Club Spartak Moscow, dedicating part of his academic career to developing studies about sport. The other publication, from 1988, addresses “The training of athletic coaches at the German College for Physical Culture in Leipzig (GDR)” (SCHROETER, 1988).

Both the first and second articles were published before the 1990s, in the midst of the Cold War and with studies in contexts belonging to the extinct Soviet Union. In the dialog with Mandell (1986), we realized that sporting advances were also part of the countries' war strategies, which led governments to invest in studies and training for the area of training and performance, considering that sporting mega-events (such as the Olympics and the FIFA World Cup) were also configured as a space for political dispute and power relations, evidencing the attempt of supremacy of one nation over another.

In this case: “*Lá Unión Soviética sabía, tras los ejemplos de Italia fascista y la Alemania nazi, que el deporte de alta competición, presentado de forma festiva, puede proporcionar, entre otras cosas, héroes míticos, distracciones útiles y fama internacional*” (MANDELL, 1986, p. 274)⁶. Sport was a way of demonstrating the progress and political singularities in the development of nations.

We also noted that there was an increase in the number of publications between 2010 and 2019 (compared to previous decades), with 46 articles published (71.9% of the total in the database), establishing an average of 5.1, with a variation of: minimum = 3 publications/year (2012, 2016 and 2019); and maximum = 9 publications/year (2017). It is likely that these factors are associated with the emergence of specialized journals, the professionalization of scientific publishing and dissemination, and the very increase in projects and production of studies in Sports Science and its sub-areas of ramification in recent years (WANG; THIJIS; GLANZEL, 2015).

Together with the production flow, it is essential to identify in which journals and countries these works are published, since this movement allows us to broadly understand the sources evidenced here and gives us the first clues as to how the theme of training to work with sport is developed in the international scientific context. To this end, we have prepared Figure 1 below.

⁶ "The Soviet Union knew, after the examples of Fascist Italy and Nazi Germany, that high competition sport, presented in a festive manner, can provide, among other things, mythical heroes, useful distractions and international fame".

These are the countries that have the most variety and the greatest concentration of periodicals where the topic is published, Brazil and Spain with 9 each and England with 7 journals. We also identified Colombia with three, Romania with two, and Russia, Portugal, Monaco, Chile, Ecuador, Costa Rica, Germany and Mexico with one journal each.

Not always the largest cluster shows where the most publications are published, as is the case of Russia (yellow cluster), which has 8 publications in only one journal. The thickness of the edges (connecting lines between the nodes) must be taken into consideration; the thicker the line, the greater the recurrence of publications in the indicated journal.

Another aspect identified concerns the concentration and dispersion of publications, where we observe the core of journals that constitute a productivity zone on the subject. For such a finding, we dialogued with Bradford's Law, which verifies the repetitive behavior of occurrences and observes that few journals publish many articles, while many journals publish few articles (BROOKES, 1977; LOUSADA *et al.*, 2012).

Bradford's Law verifies the dispersion of literature based on the identification of the core of journals dedicated to a certain subject, which, in turn, is formed by few titles that produce a large number of articles of interest. This core constitutes the number one productivity zone of distribution. The other journals, less productive, in relation to the theme are sorted into zones of decreasing productivity of articles on the subject (LOUSADA *et al.*, 2012, p. 7).

In this case, observing the edges of Figure 3 and analyzing our database, we notice that the journals in which the most texts were published were: *Teoriya i Praktika Fizicheskoy Kultury* (TPFK) – with 8 texts; *Revista Española de Educación Física y Deportes* (REEFYD) – with 6 texts; and *Movimento* (MOV) – with 5 texts.

In addition to these, the International Sport Coaching Journal (ISCJ), *Conexões* (CONEXÕES), *Educación Physics y Deporte* (EFYD), *Estudios Pedagogicos* (ESPEDA), Annals of the University Dunarea by Jos Galati: Fascicle XV: Physical Education & Sport Management (PESM), *Revista Brasileira de Ciências do Esporte* (RBCE), Journal of Physical Education and Sports (JOPEAS), *Perfiles Educativos* (PEREDU) and *Revista Mackenzie de Educação Física e Esporte* (RMEFE) are the journals that present two publications.

It is possible to notice three productivity zones according to the distribution of the publications in our database: a) zone 1 – composed of 3 journals that published 19 articles;⁷ b) zone 2 – composed of 9 journals that published 18 articles;⁸ c) e zone 3 – composed of 27 journals that published 27 articles.⁹

⁷ TPFK; REEFYD; MOV.

⁸ ISCJ; CONEXÕES; EFYD; ESPEDA; PESM; RBCE; JOPEAS; PEREDU; RMEFE.

⁹ *Ágora para la Educación Física y el Deporte* (APEF); *Apunts Educación Física y Deportes* (AEFYD); *Caderno de Educação Física e Esporte* (CEFE); *Congent Education* (CEDUC); *Cuadernos de Psicología del Deporte* (CPDD); *Revista Ciencias del Deporte* (RCDD); *German Journal of Exercise and Sport Research* (GJOEASR); *Impetus* (IMPETUS); *Instrumento - Revista de Estudos e Pesquisa em Educação* of the Federal University of Juiz de Fora (REPEJF); *International Journal of Educational Management* (IJOEM); *International Journal of Sports Science & Coaching* (IJOSSC); *International Review for the Sociology of Sport* (IRFSS); *Journal of Sport History* (JOSH); Mh

That is, 57.8% (37 articles) of the production is concentrated in 30.8% (12 journals) of the journals (zones 1 and 2), pointing to the higher occurrence of articles in a smaller number of journals. In addition, zone 1 covers almost a third (29.7%) of the publication in 3 journals, establishing, in this case, a core with the most productive journals on the theme.

The elements analyzed show us a diversity of journals and contexts. We noticed that most of the productions (42 articles) are the result of research developed and published in the same country. Analyzing, for example, the 19 articles that make up our zone 1, we notice that 18 are from the same country of origin of the journal.

When we also analyze the years in which there was a peak of productions (2015 and 2018 with 6 and 2017 with 9 articles), we observe that, of the 21 articles published in those years, more than half (11) are in 3 journals, of which: 2 in the Romanian JOPEAS (2015 and 2017); 2 in the English ISCJ (2018) and 7 in TPFK. Note that the Russian journal TPFK is one of those responsible for leveraging the productions. In it, 1/3 (7) of the total articles in the highlighted periods were published. In 2015, half of the 6 articles (3) are from TPFK, in 2017, we also have 3 articles and in 2018 one single text.

Understanding these metrics is a necessary move, as it helps us to analyze the correlation established between our object of study, the impact and circulation of researchers who study the theme, the scope of studies and those that establish themselves as reference (of journals, authors and groups). Wang, Thijs and Glanzel (2015) emphasize the importance of carrying out bibliometric studies in the field of Sports Science in international contexts. For these authors, there must be a link in collaborations between countries and the impact of citations in studies in the area.

Gama, Ferreira Neto and Santos (2021) also point to this path and emphasize that the publication of articles in other countries is one of the actions that materialize the process of internationalization of the area. In this sense, Table 3 shows the 22 articles in our database that have different countries of origin (where the study was conducted) and of publication (where the journal is located):

Table 3 - Internationally published articles

Journal country	Country of origin of the article	Number of articles	Journal
England	Singapore	2	IJOSCC
			SEAS
	Brazil	1	ISCJ

Salud - *Revista en Ciencias del Movimiento Humano y Salud* (RCMHS); *New Studies in Athletics* (NSIA); *Quest*; *Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación* (REICE); *Retos - Nuevas Tendencias em Educação Física Deporte y Recreación* (RNTEFDUR); *Revista Brasileira de Ciência e Movimento* (RBCM); *Revista Brasileira de Educação Física e Esporte* (REBEFE); *Revista de Educación* (REDUC); *Revista Didática Sistemática* (REDISI); *Revista Electrónica Interuniversitaria de Formación del Profesorado* (REIDFDP); *Revista Interamericana de Investigación, Educación y Pedagogía* (RIIEP); *Revista Portuguesa de Pedagogia* (RPP); *Revista Publicando* (RP); *Sport, Education and Society* (SEAS).

	Greece	1	IJOEM
	Iran	1	CEDUC
	Portugal	1	ISCJ
	Israel	1	IRFSS
Brazil	Spain	2	RBCE
			MOV
	Colombia	1	RBCE
	Portugal	1	REBEFE
Romania	Moldova	2	PESM
	Tunisia	1	JOPEAS
	Ukraine	1	JOPEAS
Spain	France	1	APEF
	Mexico	1	REICE
Chile	Brazil	1	ESPEDA
	Italy	1	ESPEDA
Journal country	Country of origin of the article	Number of articles	Journal
Colombia	Argentina	1	EFYD
	Portugal	1	EFYD
Monaco	England	1	NSIA

Source: Research data.

In dialog with Ginzburg (2002; 2007), we understand that this type of analysis compares to putting together a jigsaw puzzle, where the pieces (clues and signs) lead to a broader scenario that, before, seemed unknown and silenced. "What characterizes this knowledge is the ability, from seemingly negligible data, to go back to a complex reality that cannot be directly experienced" (GINZBURG, 2002, p. 152).

Table 3 allows us to identify movements about the publications that, in a way, point out the traces of possible internationalization processes. In it, we identified 22 articles from 16 countries, which were published in 16 journals located in 7 countries. The highest concentration of publications was in journals from England, with 7 articles, followed by Romania and Brazil with 4 each, in addition to Spain, Chile and Colombia with 2, and Monaco with 1 article. The country that published the most articles was Portugal, with one publication in England, one in Brazil and one in Colombia.

It is necessary to investigate the motivations for authors to seek out these countries. Some signs, such as the content of the research, its specificities for each context, the impact factor and indexing of the journals, the academic insertion of the researchers in collaboration and research groups, and their trajectory with the object, should be taken into consideration.

England is a reference by retaining 31.8% of publications from other countries. In this case, it should be noted that this country concentrates the journals with the highest IF and H5 index in our database. To give you an idea, all 7 English journals are among the 10 highest indexes H5 and 3 have the IF. The diversity of countries that search for English periodicals is also another element that indicates the scope and tradition with this theme, in total there are 6 countries from 3 different continents.

Brazilian and Romanian periodicals received 4 publications each, however, the analyzes, in this case, need to be different. In Brazil, it is noted that journals are chosen by classification and impact since the three identified in Table 3 are among the 10 with the highest H5 index and MOV among those with IF. In Romania, it is also necessary to consider the geographical and cultural proximity with the countries that have published there.

A trace captured in Table 3, and which can also be considered a determining factor for the search for a journal, is the dialog established between countries of the same language, such as texts from Mexico in Spanish journals, from Portugal in Brazil and from Argentina in Colombia. This process leads us to reflect on the different configurations of policies to promote research, publication and internationalization of academic production in each country (SANTIN; VANZ; STUMPF, 2016).

3.2 Content of the articles

Through analysis with bibliometric indicators, we observed a series of factors and specificities in the articles. However, the dialog with Bloch (2001) and Ginzburg (2007) makes us question the works in depth and reveal even more the layers of sources. In this sense, we indicate that in the titles and abstracts of the articles are the first traces and clues that help us answer the questions raised, constituting each thread that weaves the weft of the highlighted object. In this way, we produced a word cloud.

It was built from the preparation of a notepad with the titles and abstracts of the full texts, numbered 1 to 64 and standardized for the English language, which fed the software. The data generated are shown in Figure 1, which contains information about the 64 articles that make up our database.

Figure 2 – Word cloud of article's titles and abstracts

present, in a broader way, two sets of texts that have the following themes at their core: 1 – Training and relationship with sports (43 texts); 2 – Professional performance in different contexts of sport and the correlation with training (31 texts).¹¹

Group 1 brings us to the texts that address training in a broad way, especially related to the preparation of PE professionals and teachers to work with sport. First of all, it is necessary to consider what type of training is being pointed out in the works and then, its unfoldings and different modalities.

Training takes on different facets and permeates all manifestations of sport (performance, school, participation and training), which can be: PE and sport (IZQUIERDO, 2016); of teachers (directed to work in the school) (AMARA *et al.*, 2015, BACK *et al.*, 2019); of athletes (SCHROETER, 1988; WRYNN, 2007); undergraduates (KULIKOVA; KULIKOV, 2015, MALEKIPOUR *et al.*, 2018); of specialists (at postgraduate level) (PLÁSTOI, 2011); of coaches (MOLINA; GODOY; DELGADO, 2010; CORREIA; BERTRAM, 2018); and systems (YALAMA, 2017). It is also associated with different methods, projects, groups and the very notion of science.

Sport is an open cultural phenomenon inserted in a complex system, with diversities and contradictions. "*La tendencia más relevante del sistema deportivo contemporáneo es la de su diversificación*"¹² (PUIG; HEINEMAN, 1991, p. 125). Thus, the field of action needs to be understood in this system and the training should be a two-way street: on the one hand, broad and comprehensively designed for the individual and, on the other hand, specialized, which prepares a professional trained to the specificities and demands of the sports work field.

It is also necessary to understand the contexts in which this process occurs, since, in many countries, it is up to the higher education courses in PE to train these professionals; in some, to the specific federations of each practice; and, in others, to the specialized technical/higher education institutions. This is a factor that is linked to the conception of training, sport, and PE.

There are texts that deal specifically with the training of PE teachers. We observe that the word "teachers", in many contexts, denotes training to work in a school environment, or continued training for those already working in the area, as in the case of Plăstoi (2011), which talks about the education system in Romania and the changes in the training of the PE teachers.

Training for sport in certain cases is generalized as a component part of a broad training in Physical Education (most recurrent nomenclature) (FEDOROV; BLINOV, 2017); or Physical Culture (BLEER *et al.*, 2015). The nomenclature "Physical Education" is the most recurrent. It is only not used in some studies from Russia, Ukraine, and Germany, where Physical Culture is used.

This is the reality in some countries (Brazil, Israel, Ecuador, Costa Rica, Singapore,

¹¹ The sum exceeds the total because there are ten articles that are in both categories.

¹² "The most relevant trend in the contemporary sports system is its diversification."

Spain, Romania, among others), where most of the training takes place at higher/university level and enables professionals to work openly with PE, a broad area that we understand, in the dialog with Santos *et al.* (2020), as the cultural and intangible heritage of humanity, constituted in bodily practices manifested through games and play, dances, fights and sports.

Studies by Riordan (1979) and Amara, Nassib & Mkaouer (2015) exemplify this movement. The first deals with “Professional Training in Physical Education in the USSR” and discusses the training of PE instructors in the former Soviet Union. This is one of the oldest that we found. The second, “Teaching process of future Tunisian physical education teachers during professional training”, addresses the teaching processes in the initial training of PE teachers in Tunisia.

We noticed that, in the first case, there is an established project in which the goal was the methodical training of coaches/instructors for the qualification of Soviet athletes and sports development to obtain significant results in mega-events, especially the Olympic Games. The second work, more recent and in a different context, points out the formative concern of future PE teachers who will work under a schooling perspective.

Costa (2006), when debating on “*La enseñanza de la educación física ante la implantación del espacio europeo de educación superior*”¹³, emphasizes that it was necessary to rethink the future of PE teacher education in Europe, especially after the declaration of Bologna, a document which unified educational guidelines and established a European space for higher education common to the countries that made up the union bloc.

The PE area was conceived through the project “Aligning a European Higher Education Structure in Sports Science”, coordinated by the German Sport University Cologne, which developed a curriculum model for training in 4 different areas related to sport: PE (with an emphasis on school), exercise and health, sports management and sports training. Thus, it was necessary to “*Desarrollar un modelo curricular para cada una de las áreas de formación, considerando la necesidad de reforzar el proceso de reconocimiento de diplomas en Europa*”¹⁴ (COSTA, 2006, p. 32).

The themes addressed in the texts lead us to question whether the idea of producing a more comprehensive training does not end up sidelining the specific training required to work with sport at some levels and in some contexts. However, it is also necessary to consider that training is a broad process and does not only involve technique.

There are still works that discuss training under a technical and specialized perspective for a particular field but relate it to the acquisition of practical experiences and non-formal knowledge for performance. Of these, we identified the cases of Molina, Godoy and Delgado

¹³ "The teaching of physical education before the implementation of the European space of higher education."

¹⁴ "Develop a curricular model for each of the training areas, considering the need to strengthen the process of diploma recognition in Europe."

(2010) in Spanish basketball, Correia and Bertram (2018) in Portuguese surfing, and Milistetd *et al.* (2016) in Brazil, studying different training programs offered by 13 entities of different modalities.

The analysis of the works allocated in our first category demonstrates that it is necessary to reflect on the differences and convergences in training to work with sport in different modalities and in different contexts, regarding their objectives and specificities, as, in many places, this training is generalist. It is noteworthy that this is not a reality in all countries, in some places there seems to be a clearer separation of general and specialized training for sports, for example, in Argentina, Chile, Uruguay and Cuba, Latin American countries that have institutes of technical training of sports professionals.

Group 2 brings articles that present the performance itself in relation to the training of professionals in sport and the different contexts/modalities that it permeates. Here, it is necessary to pay attention to what is peripheral, to the trails left by the cloud. It is also important to understand that macro and micro contexts are in constant dialog and must consider each other, just like a rug that is woven thread by thread (GINZBURG, 2007).

The two groups are not distinct categories, they relate to each other all the time, insofar as the discussion about professional education is associated with the field of action and, many times, one is a condition for the other. Thus, depending on the object and breadth, an article can fall into both categories.

With the help of the Iramuteq statistics tool, we noticed cloud words with low recurrence such as: practice, performance, teaching, recreation, fitness, government, manager, graduates, sciences, social, economic, policy, working, school, youth, elite, management. They give us a sense of the variety of possibilities presented in the cloud that relate to sport in the content of the articles. For example, the works by Quinaud *et al.* (2019) and Rodríguez (2017) demonstrate the plurality of fields that relate to sport, training and PE.

When we study sport, we must notice it as a phenomenon that goes through and is permeated by other areas, such as politics, science, economics, practices, work, teaching, recreation, management, and people, among others that help weave its web and its manifestations. In this way, we notice the occurrence of these terms in the cloud in a peripheral way, acting all the time with the different works.

We realized that it is possible to distinguish the fields of action and understand the role of training through the manifestations of sport. As established by Tubino (2006) and Blanco *et al.* (2006), in general, the professional who works with sports can work with sports in various fields, whether in the educational field, in the recreational/leisure field, in the health field, in the field of athlete training, in the field of adapted practices or in the performance and high-performance field. Depending on the context, PE training can allow: 1 - working in all fields; 2 - working only with the school; and 3 - working only in a non-school environment (in the cases of bachelor's degrees,

for example).

It is important to understand that there is a difference between being qualified, being prepared and having transit in some niches of sport, especially when it comes to performance or basic sport. In these cases, besides having a more technical facet (in the case of specific training for coaches), training must be added to the experiences built over time with the sport practice/field in evidence.

In Costa Rica, the study by Rivas-Borbón *et al.* (2018) aimed to explore aspects related to the acquisition of knowledge and qualification that soccer coaches in first division clubs had to train, direct and intervene in decisions in that sporting environment. All ten coaches participating in the research had previously been professional soccer players.

The results showed that this experience as an athlete, added to the professional experiences in the basic categories, and the use of technological tools were the factors considered most relevant to manage with competence. Thus, it is plausible for the authors to state that, "[...] *pareciera evidente que utilizar la metodología del sistema educativo tradicional no es lo más conveniente; esta no facilita ni promueve una adquisición de destrezas prácticas para entrenar y dirigir los equipos*"¹⁵ (RIVAS-BORBÓN *et al.*, 2018, p. 13).

Trudel, Milistetd and Culver (2020) point out that this is a complex, broad and recent discussion. They expose that it is necessary to consider the life history of student-coaches and their relationships with sports, have a preparation focused on reflexive practice and understand the complexity of formative levels.

Ayala-Zuluaga *et al.* (2014, p. 373), in discussing the academic education and sporting experiences of coaches¹⁶ in South America, point out:

[...] la importancia que tienen los procesos de capacitación, formación y educación permanente en la metodología del entrenamiento deportivo son muy relevantes, pues estos contribuyen grandemente en el direccionamiento, apoyo, planificación y elaboración adecuada para la obtención o alcance de altos logros deportivos.¹⁷

Laios (2005, p. 1), in a review article about the coach training system in Greece, points out that the roles and duties of coaches are very varied to a high degree, so they need to have special knowledge from a targeted education. "In Greece, if an individual wishes to become a coach, he/she is able to do so only by dealing with sports clubs that operate outside of a school context".

Kulikova and Kulikov (2015) point out that, in a certain educational context in Russia, a

¹⁵ "[...] it seems evident that using the methodology of the traditional educational system is not the most convenient; it does not facilitate or promote the acquisition of practical skills to train and manage teams".

¹⁶ In Italy, Maulini, Aranda and Cano (2015) use the term sports educator to characterize the professional who plays a role similar to what Americans call coaches.

¹⁷ "[...] the importance of training, education and continuing education processes in the methodology of sports training are very relevant, as they contribute greatly to the direction, support, planning and adequate preparation for obtaining or achieving high sporting achievements".

practical training course can determine the professional competence of bachelors in physical culture. It is interesting to note that this study was part of a broader project, "Formation of professional competence of the future specialist in the field of physical culture and sport within practical training". That is, a perspective that takes into account the development of bodily experiences as a determining factor for acting at the specialist level, in this case, a bachelor's degree in physical culture, a kind of promoter of participatory sport, focused on health and well-being and leisure.

In Latin America, Gama and Schneider (2021) show that in Brazil, most of the training to work with sport takes place in higher education (in universities and colleges) and broadly in PE. In countries such as Argentina, Costa Rica, Chile, Colombia, Mexico, and Uruguay, in addition to higher education, there are types of formation (medium, technical, and technological) directed by the field of action, as they point out.

Rozengardt (2006, p. 82), talking about the Argentine context in a study published in EFYD (Colombia), already highlighted the need to think about the training practices of future PE teachers, especially for specific fields. In this sense, it is essential to understand that "*La formación es producto de procesos socializadores junto con la transmisión y recreación de conocimientos, competencias, hábitos y tradiciones profesionales*".¹⁸

Thus, we realize that the differences in how sport is developed and discussed in each country/context are also the result of the relationship between educational policies, training systems and fields of action. Moreover, the conception of sport and training and their insertion in different societies also impact the work possibilities for this field.

In the European scenario, we note that studies along these lines have been developed for some years. Carrizosa (2005) points out that it was necessary to establish convergence networks between the training perspectives of European bodies and institutions such as: *Comité Europeo de Educación Física* and the European Network Education and Sport Sciences. For him, it is essential to establish specific competences and the clear implementation of the fields of action.

Another longitudinal study, consisting of two articles, developed by Pinasa (2011, 2014), aimed to present an overview of employability and sport, in view of the extensive labor market, the various training course configurations, the different degrees and the consequent difficulties in directing action. In general, the author points to the need to bring the professional output profile closer to the proposal for the alignment of higher education in Sports Science in Europe, made by *Red Europea para las Ciencias del Deporte, la Educación y el Empleo* in 2006. Thus, in the medium and long term, the training area of the *Ciencias de la Actividad Física y Deporte* should "[...] *impulsar iniciativas de investigación y de formación para estudiantes y para personas que*

¹⁸ "Training is the product of socializing processes along with the transmission and recreation of knowledge, skills, habits and professional traditions."

ejercen actividades profesionales"¹⁹ (PINASA, 2011, p. 34).

In some cases, training and performance are distant from reality due to lack of experience, technical training and proximity to the sport in evidence. With this, Pinasa (2014, p. 1) concluded that the results of his studies: "[...] *deberían servir para replantear seriamente las orientaciones de los estudios universitarios en ciencias de la actividad física y del deporte y para garantizar que las salidas identificadas se relacionan con las necesidades del mercado de trabajo*".²⁰

It is necessary to understand that, when thinking of a continent in a macro way, the initiatives of structuring in sports education and directing the fields of action in practice are complex. Another factor that interferes is the development of each country, multiculturalism and, in some cases, the lack of delimitation of fields of action for each professional profile established, since the possibilities of working with sport are vast.

4. Final Considerations

We understand that there is a complex relationship between training and fields of action, when thought of under the perspective of the sports phenomenon. An example of this is the pulverization of publications since the 64 articles were published in 25 different countries. The very terminology used to describe the subject who works in this area demonstrates such complexity, sometimes he is the coach, sometimes a technician, sometimes a sports educator, sometimes a PE teacher, sometimes a professional/bachelor in PE.

Each country, region, institution, group and researcher has its own rationale. Thus, exploring continuity and tradition with studies on the theme, focusing on the insertion of authors in research groups, possible collaborative networks/partnerships and their amplitude, and the internationalization of articles is fundamental.

We agree with authors such as Carrizosa (2005), Laios (2005), Pinasa (2014), Ayala-Zuluaga *et al.* (2014) and Rivas-Borbón *et al.* (2018) who, in some way, highlight the importance of thinking about sports education in a specific way and its correlation with PE, fields of action, training systems, public policies, federation initiatives and the social configuration itself in each context.

Finally, the variety of training perspectives and possibilities for work must be highlighted, since the fields of action may take on different facets depending on the context and the ways in which sport manifests itself there. This also leads us to reflect on training policies, culture, and how sport and PE are viewed in different countries.

Another important point is that this movement materializes not only in initiatives to redesign curricula and/or open targeted courses (as already occurs in many places), but also in the continuity of studies and research projects that follow this line of reasoning and specifically focus

¹⁹ "[...] to promote research and training initiatives for students and professionals".

²⁰ "[...] should serve to seriously rethink the orientations of university studies in physical activity and sport sciences and to ensure that the identified outputs are related to the needs of the labor market".

on training for professional practice with sport.

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