# 114 - EPISTEMOLOGICAL TRENDS OF THE GRADUATE COURSE IN PHYSICAL EDUCATION AT THE REGIONAL UNIVERSITY OF BLUMENAU

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#### **INITIAL CONSIDERATIONS**

The studies that have proposed to analyze the scientific production in the area of Education in Brazil, allows us to state that since the 70s of the twentieth century, many authors such as Di Dio (1976) and Cunha (2006), have focused on identifying on how this production was given in the masters and doctoral degrees in the country, seeking mainly to reveal the trends of the research developed in this sector (SANTOS et al. 2006).

Considering the scenario of the courses in Physical Education in the State of Santa Catarina, research and educational practices developed throughout history, there is clearly a technical context, highlighting the prospect of a teaching system sustained by Fragmented and decontextualized practices , a transformative and revolutionary critical educational proposal (OLIVEIRA and CARTIER, 2008), this effect arises the need to enable educational practices that have a true technical understanding about the phenomena studied, and furthermore, which has a direct relevance to empirical reality.

In this development and solidification of the theoretical framework, the academy becomes one of the pillars in the perspective of legitimacy and representativeness of the category, because the students who become teachers, only change their practices when they are able to reflect upon their selves and their formation (Cunha, 2006). The scientific and political purposes that are pursued forbid us to give a finished definition to an unfinished process. It obliges us to observe all the stages of the phenomena, to make the progressive and reactionary tendencies appear, to reveal their interaction, to predict the many variants of further development, and find an accurate point to support the action (Trotsky, 1995).

Oliveira and Cartier (2008) assert that Physical Education in school has its legitimacy, while the laws that support it see it as convenient to remain in the school curriculum. The representativeness of this in the school context and other social structures is directly connected to the education that is offered, in other words, research, extension, content, reflection, autonomy and resilience. Respectability obtained by a determined professional category in the society, is equivalent to the level of importance and quality of services it offered (CASTELLANI FILHO, 2005).

The degree in Physical Education of FURB started in 1974, from the 2001Act, and was established the college of Physical Education and sports. Currently the course offers undergraduate and graduate qualifications. Its representation is very important to the society of Blumenau, since the category has the insertion of many professional segments, namely: Kindergarten, elementary and secondary schools, gyms, bodybuilding, sports clubs, public health, and others.

The need for studies that examine the scientific production is given to the influence that the research offers to produce knowledge, and in this production, the conditions of the material and its applicability on educational practice are dialectically intertwined with regard to research, teaching and extension. The theoretical methodology offers the ability to view the epistemological basis implicit in scientific papers, and not only does this enable the comprehension of the research process in the academician range, but its construction process, solidification conditions and perpetuation of a particular paradigm historically determined ahead of the market reserves and education.

Given the above, As an objective we have to analyze the development of scientific production of Physical Education in the seminars and forums offered by the institution from 1999 to 2009, whereas that the epistemological basis implicit in the undergraduate research allow and / or determine the educational practice category historically.

### PRODUCTION AND SCIENTIFIC KNOWLEDGE

The concept of epistemology is therefore used quite flexible. Its philosophical and ideological assumptions, and in accordance country and its customs, it serves to describe either a general theory of knowledge (JAPIASSU, 1992).

D'Agostini (2009) understands that it is the aggregation of knowledge and explanations about an object; they are explanations of objective reality with the purpose of understanding it and transforming it according to the human needs, Thus, all science is based on a worldview that guides humans and their principals, actions, methods and their comprehension of how human beings learn and build knowledge. Systematically, the intellectuals of Latin America are no longer connected and dependant organic intellectuals of the popular movements to become institutional tied intellectuals to funding agencies and their intellectuals properties. In its broadest sense, the rise of the institutional intellectuals and the decline of organic intellectuals represent a counter-cultural revolution, a great leap backwards (PETRAS 1994)

In this sense, the intellectuality within the universities, the scientific entities and other manifests should rearrange its forces as organic intellectuals in the struggle to overcome the destructive way of capital, organizing the production of tangible and intangible assets and guide the educational reforms and teacher training. Freire (1996) already commented that there is no education without research and neither teaching without research, there are intertwined, inseparable. Science is not just a product of reason, but a product of society, that rises from the needs of the production of material (TSYGANKOV, 1987).

The epistemological paradigms, besides articulating the techniques, methods and theories in a certain conception of science, presuppose and assume philosophical concepts related to the theories of knowledge that support the scientific processes to the scientific assumptions and assume Gnostic conceptions of reality or visions of the world, which implicitly supports all cognitive and ontological relationship (SANCHES GAMBOA and CHAVES, 2007).

In Locke, Mill, Hume, and Bacon positivism is its main exponents. This frame Matrix is based on observation data of experience, of the laws that govern the phenomena. In reality the finding of the emergence and the regularity of the phenomena leads us to the generalization. For positivism all human knowledge either comes directly or immediately from experience (BARROS ELEHFELD, 2001).

The term phenomenology derives from two other Greek root words: phainomenon; what is shown from itself, and

logos; science or study. Therefore, etymologically, Phenomenology is the study or the science of the phenomenon, being that by phenomenon, in its most generic sense, being understood that everything which appears, manifests, or reveals does it on its own (MOREIRA, 2002).

To Sanches Gamboa (1987) epistemology dialect theory of knowledge develops in the critical operational relationship between philosophy and science, it doesn't close itself in the field of science such as in positivism. It becomes critical knowledge to the extent that it uses the laws and categories of the dialectical materialism as critical and reflective instrument for studying the process of scientific production, understood as processes of human knowledge.

#### SCIENTIFIC PRODUCTION IN PHYSICAL EDUCATION

According to Silva (1997) it was in the early '90s with the appearance of studies that searched to identify the theoretical frameworks that guided the researches produced in Physical Education and Sports, which purely epistemological concerns were made present in some investigations.

Such perspectives have sought out to identify different ways and means of construction of scientific objects, ways to relate the subject and the object, or to treat the reality, the abstract and the factual in the process of knowledge, identifying the scientific criteria in which the researches are based on (SANCHES GAMBOA, 1987).

Some conceptions of the period before the 1980s were characterized by adopting an uncritical traditional vision without a social approach, linked to the mechanism of maintaining the status in the Brazilian society. To Castellani Filho, (1988) the conceptions of greater significance in Physical Education at the time were characterized as biological, physcho-pedagogical and historical-critical. In the specific case on the study of the conception of Physical Education, which pervaded the prescribed curriculum, a close relationship was observed between the inherent concepts in the curriculum and the interests of economic elites and social laws (SOARES, 1994).

Despite all the socio-political changes that have been experienced in recent decades, in a speech that overestimates Education, we still have a rather poor scenario, mainly because this speech did not influence the pedagogical practice definitely, in this sense the objectives and educational proposals for Physical Education were modified over this past century, and all these tendencies, somehow, they still influence the formation of the professional and pedagogical practices of Physical Education teachers. (DARIDO, 2004), showed utmost relevance in the context of scientific research in Physical Education.

### **METHODOLOGICALASPECTS**

This research had as its main element qualitative research for the consolidation of academic research, and in the documentary it had its main component as investigation. The qualitative method aims to create a model of deep understanding of connections between elements, in other words, speak of an order that is invisible to the naked eye (TURATO, 2005). The characteristics of the documentary research is that of which the source of collection is restricted to written or not written documents, constituting what is called primary sources (MARCONI E LAKATOS, 2002).

Regarding the proposal of identification of the epistemological foundations and methodological technical references, the paradigmatic scheme proposed by Sanchez Gamboa (1987) was used. All the productions of Physical Education, available in annals of events, totaling (40) abstracts, collected in the event of undergraduate research of FURB, Integrated Seminar of undergraduate research (ISUR), Academic Forum for Scientific Initiation (AFSI), and Exhibition of Integrated Research and Extension (EIRE) in the period of ten years were all analyzed.

For the epistemological analysis we use the categories and the perspectives proposed by Sanchez Gamboa (1987) in which shows a paradigmatic scheme as an instrument for the study of links between the constructive elements and research. From these linked elements it was feasible to identify the gnosiological and ontological assumptions divided into the positivist approach, phenomenological-hermeneutic and dialectical critique.

The first approach or focus is called empirical-analytic and it uses the predominantly quantitative techniques. These techniques ensure the objectivity of the data, of empirical origin, marks the object as all factual, isolate it, dissect and freeze it. With the strict control of variables it facilitates the manipulation. Certainly, the interest that guides these processes is the control technician.

The phenomenological-hermeneutic approach doesn't prioritize the quantification of data, but describes and analyzes the phenomena involved in the process. The critical dialectical approach seeks to understand the processes of transformation, its contradictions, and its potential. The criticism of the economic determinants, social and historical is present (SANCHES GAMBOA, 2007).

The field of coverage lies in the area of Physical Education and the Epistemology, more specifically in the characterization of the epistemological foundations, its implications in the theoretical methodological references and in the scientific production of Physical Education at the Regional University of Blumenau.

#### ANALYSIS AND DISCUSSION OF RESULTS

In the period of 1999 to 2009, there were three main events of Undergraduate Research at the Regional University of Blumenau, Integrated Seminar of Undergraduate Research (ISUR), Undergraduate Research Forum (URF) and the Undergraduate Research forum of Research and Extension (URFRE), as in Table 1. The results show a total of 40 productions of the Physical Education course in the events of Undergraduate Research at the Regional University of Blumenau over the past ten years. During this period, very few papers were presented, which can be attributed to a lack of research of the students of Physical Education.

YEAR	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	TOTAL
EVENT	V ISUR	VI ISUR	VII ISUR	l URF	li URF	lii URF	IV URF	V URF	I URFRE	li URFRE	III. URFRE	40
NUMBER OF ABSTRACTS	0	2	0	3	7	1	4	2	6	9	6	

# TABLE 1 - ANNALS OF PHYSICAL EDUCATION SUBMITTED IN THE EVENT OF UNDERGRADUATE RESEARCH OF FURB

The mapping showed a total of 40 abstracts of annals, as in Table 2, being (28) featured an empirical-analytic approach, making a percentage of 70% of the sample (9) in the phenomenological – hermeneutics approach, 22.5% and, (3) works on the dialectic critical approach, representing 7.5%.

EPISTEMOLOGICAL APPROACHES OF ANNALS OF UNDERGRADUATE RESEARCH OF FURB							
APPROACH	NUMBER OF PAPERS	(%)					
EMPIRICAL - ANALYTICAL	28	70%					
PHENOMENOLOGICAL-HERMENEUTIC	9	22,5%					
DIALECTICAL-CRITIQUE	3	7,5%					
TOTAL	40	100%					

#### TABLE 2 - NUMBERS AND PERCENTAGES OF EPISTEMOLOGIC APPROACHES

The form of examination was held up on these three distinct methodological approaches. The abstracts that presented a profile within the empirical analytical approach stood out in a dichotomous way not leaving room for further analysis or reflection. The aim was primarily to show, identify, quantify, compare, and measure the data. This approach advocates the technicality, making it evident in the analysis. About the 9 (nine) abstracts featured in the hermeneutic-phenomenological approach became evident in other objectives and forms of data measurement, leading to analysis, reflection, and understanding. The main intention of this approach is not based only on pointing out the numbers and quantifying results, but to reflect on how such numbers came up. The understanding of how the occurred phenomenon manifests in the research process is essential to characterize this approach. Finally, 3 (three) papers showed profiles of a dialectic critical approach. In this approach the introductions of the abstracts located the type of research, but did not present a specific description of the methodology, indicating the possibility of reflecting upon the theory and practice. The abstracts still expounded a vision of social and economic facing the topics that were approached.

The regulation of the profession in Physical Education in 1998, master's and doctoral degrees of the universities in the country started to offer more opportunities of qualification to the future professionals in the area, thereby increasing the competition among the students of Physical Education. One of the ways to aggregate value to their academic curriculum and be competitive to compete with the masters program is precisely doing research, obtaining knowledge, and as a manner of disseminating the results of work is to exhibit it in the Events of Undergraduate Research the institutions offer.

In 2007 the first edition of the Exhibition of Undergraduate Research forum of Research and Extension (URFRE) was held, and it was possible to note a significant increase in the production in Physical Education, considering that the number of abstracts of the three editions of the URFRE accounted for 50% of all academic production of Physical Education over the past ten years, which somehow proves the ascendancy of research in Physical Education as well as in the academic awareness of the necessity of doing research.

#### **FINAL CONSIDERATIONS**

The pedagogical practice should be reconsidered in order to provide learners meanings, ways of reflecting, and acting autonomously causing them to emancipate themselves, establishing relationships with their daily lives through communicative action, making them realize that they are part of the constructive social-historical process of the society (KUNZ, 1991).

Carrarroz and Bracht (2007) indicate that the teacher did not apply the theory to itself, but reinvented it by reflections about them, becoming the author of their teaching and not a mere reproducer. It could be determined that from this understanding the educational praxis has a great role in this learning process, and enable the teacher to be the mediator of knowledge and can give the students the opportunity to express themselves about their own creations and possibly understandings about the development of activity proposed by the mediator. The reflection in this sense is needed on the role of the university education, to understand the university as a place of reflection, scientific production knowledge production, independently and free as the sense of academic teachings always was.

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# EPISTEMOLOGICAL TRENDS OF THE GRADUATE COURSE IN PHYSICAL EDUCATION AT THE REGIONAL UNIVERSITY OF BLUMENAU

# ABSTRACT

Studies have been conducted since the 70s to analyze the scientific production of education in Brazil, uncovering the trends in research. The scenario of the courses of physical education in the State of Santa Catarina, research and educational practices, a technical context can be observed, showing the prospect of a teaching system sustained by fragmented and decontextualized practices, of a critical transforming and revolutionary educational proposal. The aim of this study is to analyze the development of scientific output of Physical Education in the seminars and forums offered by the Regional University of Blumenau in the period of 1999 to 2009, whereas that the epistemological basis implicit in the undergraduate research allow and / or determine the educational practice category historically. For this matter a qualitative research was conducted, taking the paradigmatic scheme of Sanchez Gamboa (1987) the components needed for the study analysis. The mapping showed a total of 40 abstracts of proceedings, (28) featured an empirical-analytic approach, making a percentage of 70% of the sample, (09) in the phenomenological – hermeneutic approach, and 22.5%, (03) works in Critical approach – Dialectic representing 7.5%. The results show that empirical-analytic studies are the most commonly performed, which is characterized as a positivist line of approach, which quantitative techniques are predominantly used, in which there is a control of variables.

**KEY WORDS:** Physical Education, Epistemology, Scientific Production.

# TENDANCES ÉPISTÉMOLOGIQUES DU COURS DE GRADUATION (Licence) EN ÉDUCATION PHYSIQUE DE L'UNIVERSITÉ RÉGIONALE DE BLUMENAU

#### RÉSUMÉ

Depuis les années 70, des études sont menées afin d'analyser la production scientifique de l'Éducation au Brésil, et dévoilent les tendances de la recherche. Dans l'État de Santa Catarina, le scénario des cours d'Éducation Physique, de la recherche et des pratiques éducatives montrent, clairement, un contexte techniciste. Il met en évidence la perspective de reproduction d'un modèle d'enseignement, basé sur des pratiques fragmentées et décontextualisées d'une proposition d'enseignement critique, transformateur et révolutionnaire. Le but de cette étude est d'analyser le développement de la production scientifique de l'Éducation Physique, dans les séminaires et forums offerts par l'Université Régionale de Blumenau, durant la décennie 1999 à 2009, en considérant que les fondements épistémologiques implicites dans les travaux d'initiation scientifique permettent et / ou déterminent la pratique éducative de la catégorie, historiquement. Pour cela, nous avons réalisé une recherche qualitative, ayant dans le schéma paradigmatique de Sanchez Gamboa (1987), les composants nécessaires à l'analyse de l'étude. La cartographie a montré un total de 40 résumés d'annales, (28) caractérisés par une approche empirique-analytique, soit un pourcentage de 70% de l'échantillon, (09) dans une approche phénoménologique - herméneutique, 22,5%, et (03) travaux à partir d'une approche Critique – Dialectique, représentant 7,5%. Les résultats mettent en évidence que les recherches empiriques analytiques sont les plus réalisées et se caractérisent par un axe d'approche positiviste, utilisant, principalement, des techniques quantitatives, dans lequelles se trouvent des contrôles de variables.

MOTS-CLÉS : Éducation Physique ; Épistémologie ; Production Scientifique.

# TENDENCIAS EPISTEMOLÓGICAS DE LA CARRERA DE LICENCIATURA EN EDUCACIÓN FÍSICA DE LA UNIVERSIDAD

### RESUMEN

Desde la década de los 70, se ha venido realizando estudios con la finalidad de analizar la producción científica de la Educación en Brasil, desvendando las tendencias de la investigación. En el panorama de los cursos de Educación Física en el Estado de Santa Catarina, la investigación y las prácticas educativas, presentan un contexto, nítidamente, de pedagogía tecnicista, que evidencia la perspectiva de reproducción de un modelo de enseñanza sustentado por prácticas fragmentadas y descontextualizadas, de una propuesta educacional crítica, transformadora y revolucionaria. El objetivo de este estudio es analizar el desarrollo de la producción científica de Educación Física en los seminarios y fórums ofrecidos por la por la Universidad Regional de Blumenau en el período entre 1999 y 2009, considerando que las bases epistemológicas implícitas en los trabajos de iniciación científica posibilitan y/o determinan la práctica educativa de esa categoría viendo desde un punto de vista histórico. Con este fin realizamos una investigación cualitativa, con base en el esquema paradigmático de Sanches Gamboa (1987) que aportan los componentes necesarios para el análisis de este estudio. El sondeo arrojó un total de 40 resúmenes de trabajos publicados en eventos reconocidos, (28) característicos con un enfoque empírico-analítico, formando un porcentaje de 70% de la muestra, (09) con foco en la fenomenología - hermenéutica, 22,5% y, (03) trabajos con una orientación Crítico - Dialéctica representando 7,5%. Los resultados evidencian que las investigaciones empíricas analíticas son las más realizadas, que se caracterizan como una línea de enfoque positivista, cujas técnicas utilizadas son predominantemente cuantitativas, en que existe un control de las variables.

PALABRAS CLAVE: Educación Física; Epistemología; Producción Científica.

#### TENDÊNCIAS EPISTEMOLÓGICAS DO CURSO DE GRADUAÇÃO EM EDUCAÇÃO FÍSICA DA UNIVERSIDADE REGIONAL DE BLUMENAU RESUMO

Desde a década de 70 estudos são realizados com o intuito de analisar a produção científica da Educação no Brasil, desvendando as tendências da pesquisa. O cenário dos cursos de Educação Física no Estado de Santa Catarina, pesquisa e as práticas educativas, nitidamente observa-se um contexto tecnicista, que evidencia a perspectiva de reprodução de um modelo de ensino sustentado em práticas fragmentadas e descontextualizadas, de uma proposta educacional crítica, transformadora e revolucionária. O objetivo deste estudo é analisar o desenvolvimento da produção científica da Educação Física nos seminários e fóruns oferecidos pela Universidade Regional de Blumenau no período de 1999 a 2009, considerando que as bases epistemológicas implícitas nos trabalhos de iniciação científica possibilitam e/ou determinam a prática educativa da categoria historicamente. Para isto realizamos uma pesquisa qualitativa, tendo no esquema paradigmático de Sanches Gamboa (1987) os componentes necessários para análise do estudo. O mapeamento apontou um total de 40 resumos de anais, (28) caracterizados numa abordagem empírico-analítica, perfazendo um percentual de 70% da amostra, (09) na abordagem fenomenológica - hermenêutica, 22,5% e, (03) trabalhos na abordagem Crítico - Dialética representando 7,5%. Os resultados evidenciam que as pesquisas empíricas analíticas são as mais realizadas, que caracteriza-se como uma linha de abordagem positivista, na qual se utiliza técnicas predominantemente quantitativas, em que existe controle de variáveis.

PALAVRAS CHAVE: Educação Física; Epistemologia; Produção Científica.