

**99 - THE FOUNDATIONS OF CONSTRUCTIVIST APPROACH OF PHYSICAL EDUCATION.**

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**INTRODUCTION:**

This paper aims to undertake an analysis of the foundations of the constructivist approach of physical education. First will be exposed the gnosiological and ontological assumptions of the thinking of Jean Piaget, from which this approach extracts its theoretical basis, as in its relation to specific issues present in works that can be considered as belonging to the constructivist perspective of physical education. Later, there will be a critique from the perspective of dialectical and historical materialism, of the political and pedagogical implications of the teaching that is advocated by the constructivist approach of physical education, which is based on the Piagetians assumptions.

The preparation of this work is justified by the possibility of obtaining a deeper understanding of some aspects of the Physical Education proposal, here studied through the analysis of its relationship with the thinking of Piaget. This deeper study highlights certain problems of the constructivist approach with regard to the views of man and society that supports it.

**PIAGET IN THE CONSTRUCTIVIST APPROACH OF PHYSICAL EDUCATION:**

Before we explain how the thought of Piaget influenced the constructivist approach of physical education, we should say that there is no consensus on which authors can be labeled "constructivists" neither in the area in question nor in Pedagogy.

Nevertheless, it is possible to say that the most diverse constructivist proposals have in common the fact that many of its fundamentals are inherited from Piaget's epistemology.

In Physical Education, a renowned author who makes use of the thinking of Piaget is João Batista Freire, who wrote one of the classic works in this area, entitled Whole body Education. In addition to some Freire's production, we can add, for example, the contributions of Matos and Neira (1999, 2002), as belonging to the constructivist approach.

The thought of Jean Piaget starts from gnosiological and ontological assumptions that must be analyzed for a better understanding of its political and pedagogical implications. This is because, as Sánchez Gamboa (2007, p.58) says:

On recovery of the interrelationships between epistemological and gnosiological assumptions and the concepts of the real (ontological categories) we can unravel the ideological and philosophical implications of a particular model of scientific research and thus to elucidate the profound relationships between knowledge and interest.

With regard to the gnosiological assumptions, Piaget identified along the ontogeny certain stages or steps that represent the development of cognitive structures self-regulated, which occur successively through a dialectical process in which the previous steps are faded by the next ones.

Thus, the sensorimotor stage, pre-operational stage, concrete operational stage and formal operational stage (or hypothetical-deductive), are structures organized in gradually higher levels, which express the subject's cognitive development, which progresses from the initial self-centeredness to socialization.

Based on the analysis of the psychological researches on the development of intelligence and cognitive structures, Piaget says that three perspectives can be identified. The first, empiricist, reduces all knowledge to exogenous acquisitions from the experience or from exhibitions guided by adults. The second, nativist, influenced by the linguist Chomsky, believes in the existence of a "innate fixed nucleus", which is determinant of the initial language structures, such as the relationship between subject and predicate (Piaget, 1996, p.10). Finally, Piaget describes the approach that he advocates:

The third direction, which definitely belongs to us (and that leads us to attribute the beginnings of language to the structures built by the pre-existent sensorimotor intelligence), is constructivist in nature, ie without exogenous pre-formation (empiricism) or endogenous (nativism) by continuous breaches of the successive elaborations, which in the pedagogical point of view, undoubtedly leads to the whole emphasis on activities that foster the spontaneity of the child (Piaget, 1996, p.10-11).

The relationship that Piaget establishes between the result of his epistemological researches and teaching is explicit. Starting from the assumption that "to know an object is to act upon it and transform it" (Piaget, 1975, p.37), the Piagetian gnosiology advocates that education should provide an environment that stimulates the students' interest and initiative, to act on the objects of study.

Piaget (1996, p.15) advocates the presence of "active methods" in education, that stimulate the student's spontaneous research and require "that all truth that is to be acquired must be reinvented by the student., or at least rebuilt, and not simply transmitted" (Piaget, 1996, p.15).

From this perspective it is inevitable some reduction of the teacher's assistance. In this regard, Piaget warns that the teacher's role will not be canceled completely, that "the teacher remains indispensable, as an entertainer" (Piaget, 1996, p.15, emphasis added).

Having Piaget as reference, the authors that support the constructivist approach of Physical Education severely criticize the teaching model they call traditional, in which students are placed sitting on their desks for a few hours a day, receiving mostly expository lessons.

In the words of Freire (1994, p.12):

Sometimes lack vision to the school system, sometimes lack scruples. It is difficult to explain the immobility that children undergo when they enter school. Even if it were possible to prove (and it is not) that a person learns best when it is motionless and silent, it could not be imposed from the first day of school, in a sudden and violent way.

For the author, the school should be concerned about the students characteristics of development and students' interests, rather than focus on the transmission of messages that often bear no relation to their experiences outside of school.

Thus, Freire (1994) recommends that teachers use the context of games to teach certain contents. He cites the example of the circus game, by which the teacher can contribute to the development of fine motor skills, coordination of space and time, or skills to jump, turn and shoot, for example.

The issue is that this "extraordinary teaching resource that is the game or toy" (Freire, 1994, p.51) makes an activity more meaningful for students, especially in the early grades of elementary school, rather than the simple repetitions of decontextualized movements, which are less motivating.

Piaget discussed the importance of students' interest for the active methods in some of his writings focused directly on education. In Psychological observations on team work, referring to the knowledges that are permanent, and those which are ephemeral - forgotten as time goes by - the epistemologist claims that "what remains is the set of knowledge based on real activity, ie on the personal initiative, on a systematic effort to assimilate, on the real interests" (Piaget, 1998, p.149).

Accordingly, since there is interest, students engage voluntarily in solving problem situations posed by the teacher, whose solution requires the construction of new forms of action, which, in turn, enable them to assimilate new knowledge objects.

Another aspect of Piaget's gnosiology, in line with the issue of participation of students in the construction of knowledge, is the appreciation of group work, where students cooperatively develop research according to their interests, only assisted, coordinated, by the teacher -- what Piaget (1998, p.114) calls "self-government."

For the author, co-operation, in contrast with the social coercion is "the set of interactions between equal individuals (as opposed to interactions between upper and lower) and differentiated (as opposed to mandatory conformity)" (Piaget, 1998, p.153) that contributes to the development of autonomy, reason and socialization.

It is undeniable the close relation between the pedagogy advocated by Piaget and constructivist approach of physical education. When Freire (1994) describes the case of "zerinho" - an activity in which students try to pass a string being hit by avoiding being touched by it - he proposes that the teacher do not organize the students into columns, but let that they organize themselves on their own, to realize by themselves, the need for organization. On this point, he said: "This stance is more in line with the spontaneous activity of children out of school and with an education for autonomy" (Freire, 1994, p.87).

After the description of the gnosiological assumptions, will be described the piagetians ontological assumptions that are present in the proposal of Physical Education in question.

The first of these aspects to be described is the vision of man that Piaget advocates. The eminent researcher believes that the skills vary from one individual to another, which requires a state of readiness so they will not be wasted or, conversely, suppressed by society. This caution means both respect and recognition to the different possibilities of every human being.

The problem of the discourse of psychological differentiation is the meaning it acquires when linked to the social division of labor. For the renowned swiss researcher:

The skills of a good doctor (the clinical sense, the speed of visual inspection, contact with patients) are certainly individual and almost innate: you can not learn them and are at most possible to be developed. But wouldn't be of any use for a doctor to have them if he had not studied, for years, anatomy and physiology, pathology and clinical. Likewise, you are born a teacher: nobody becomes teacher and the most beautiful lessons of methodology does not provide the secret of the contact with the children to a future teacher who does not like them (Piaget, 1998, p.181).

Thus, one can say that certain individuals, because of lack of "almost innate" skills to be doctors, teachers or engineers, were born condemned to the function of garbage collectors, housemaids or cane cutters. The fact that skills must be developed not change the fact that, for Piaget, they define, when effected, the position that individuals occupy in the social division of capitalism labor.

Piaget (1996, p.44) uses the discourse that all forms of social activity are "endowed with equal dignity," which is very problematic when we take into account the degrading conditions of certain activities, in capitalism production mode. With the overcoming of the social division of labor, the most diverse activities will not mean dullness, disgrace, but as above, what Piaget calls is just the opposite: the legitimacy of the social division of labor.

When the constructivist approach of Physical Education made the teaching a subjective object, also inherited from Piaget the defense that individual differences cause different school learnings. In this sense, Freire (1994, p.188) states: "going as far as possible to reach, or even when the number of classes allow, we try to ensure that children move more or less according to their individual capacities." And later in his text, the author launches the question: "If there aren't on Earth two equal individuals, how can a class of children be the same at the end of a lesson?" (Freire, 1994, p.188).

#### **CRITIQUE OF PIAGETIAN ASSUMPTIONS:**

The intention of this work is not, of course, to deny any difference between the students; it is, however, a criticism of the use of the speech of individual differences for the legitimacy of the social division of labor, which naturalizes the social inequalities, taking into account the interests of the ruling class.

As shown earlier, the constructivist approach of Physical Education adopts the model of active methods of student-centered education, and Piaget as one of its references.

The biggest problem of the pedagogical piagetian subjectivism is that, by emphasizing the spontaneous activity of the students, the interests that they have due to some of their experiences, the activities of students from the lower classes are unlikely to be as productive in the sense of assimilation of elaborated knowledge, as the activities of the students of the ruling class. This is because the members of the proletariat have, in general, more difficult to bring their children close to erudite language, which is the language of school.

The knowledge produced is more complex than the information that students assimilate in their everyday routine, as well as the scholarly language is foreign to children - especially to the ones of lower classes. A progressive pedagogy should provide an excellent place for the teacher to exercise his pedagogical ability, by which he can fight against certain limitations in the initial desires of the students. Without this condition, the students that come from the lower classes, most likely, would be condemned to the most ignominious positions in the social division of capitalist labor

Saviani (1989) argues that the dominating the elaborated knowledge is an indispensable tool for political participation of the masses. Thus, "the dominated is not released if he does not come to dominate what the dominant dominate. So to dominate what the dominant dominate is a condition of release" (SAVIANI, 1989, p.66).

The priority of the content, of the assimilation of knowledge universally systematized, is lost in the constructivist perspective. In one of his most recent works, Neira (2005, p.07), speaking to the students and professionals involved with education, suggests that "we no long focus on the transmitted knowledge in order to insist on the education process." The problem is that the training that doesn't have the transmitted content as a priority compromises the specific role of the school, at

the same time it serves the interests of the ruling class.

The education focused on spontaneous activity of the student is a loss to the difficult and often tortuous process of acquiring elaborated knowledge by the children of the proletariat. This should not be understood as support for a form of violence to the individuality of the students, because violent is the teaching that condemns them to the most degrading positions in the social division of capitalist labor.

It is necessary to have a Physical Education teaching which aims to bring the students closer of elaborated knowledge, universally produced, about the corporal culture. It is precisely in this point that is found the place in which the physical education teacher can act, trying to develop in students the pleasure of reading the classics, the pleasure of knowing how the Olympic Games in Ancient Greece were, the social significance of swimming learning in the Roman Empire, or the direction that Hitler gave to the 1936 Olympics, which were held in Nazi Germany, for example.

#### FINAL CONSIDERATIONS:

From the analysis undertaken here is possible to identify how the gnosiological and ontological assumptions of Piagetian thinking influenced, more or less consciously, the development of the constructivist approach of physical education.

On a historical-critical perspective is possible to identify some problems in that approach, which is stuck to the piagetian parameters of the subjective teaching, and therefore compromises the appropriation area of the elaborated knowledge on the corporal culture by the students.

It is necessary to break with the piagetian assumptions that are adopted by the constructivist approach to physical education because they have as a consequence, ultimately, the maintenance of production relations that currently exist. A progressive proposal must come from other assumptions, if the what we desire is an education that contributes, even within the current environment, to build another society, truly more human and less exclusive.

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#### THE FOUNDATIONS OF CONSTRUCTIVIST APPROACH OF PHYSICAL EDUCATION.

##### Abstract:

This study aims to examine the foundations of the constructivist approach of physical education. To achieve this goal, a study of the thought of Piaget will be done, since the renowned author is the main source of the assumptions that underlie this approach, which calls for the study of his works for a better understanding of its political and pedagogical implications. From the perspective of dialectical and historical materialism is possible to identify problems in the constructivist approach, which is stuck to the parameters of learner-centered teaching, and therefore inherits the bourgeois visions of man and society advocated by Piaget.

**KEYWORDS:** Physical Education in school; Piaget, Jean, 1896-1980; Constructivism (Education), Education - Philosophy.

#### LES FONDEMENTS DE L'APPROCHE CONSTRUCTIVISTE DE L'EDUCATION PHYSIQUE.

##### RÉSUMÉ:

La présente étude a pour but d'analyser les fondements de l'approche constructiviste de l'Education Physique. Pour ce faire, une étude du raisonnement de Piaget sera effectuée, car cet auteur de renommé constitue la principale source des pré-supposés dans lesquels se base l'approche dont il est question. L'étude de ses œuvres est ainsi nécessaire à la compréhension de ses implications politico-pédagogiques. En se positionnant dans la perspective du matérialisme historique et dialectique, nous pouvons dénoter des problèmes dans l'approche constructiviste. Cette approche dénigre les paramètres de l'enseignement centrée sur l'élève, et hérite des points de vues aristocrates sur l'homme et la société soutenus par Piaget.

**MOTS-CLEFS:** Education physique scolaire; Piaget, Jean (1896-1980); Constructivisme (Enseignement); Enseignement-Philosophie.

#### LOS FUNDAMENTOS DEL ENFOQUE CONSTRUCTIVISTA DE LA EDUCACIÓN FÍSICA.

##### RESUMEN:

Este estudio tiene como objetivo analizar los fundamentos del enfoque constructivista de la educación física. Para alcanzar este objetivo, se hará un estudio del pensamiento de Piaget, puesto que el reconocido autor es la principal fuente de los supuestos que subyacen a este enfoque, lo que torna necesario el estudio de sus obras para una mejor comprensión de sus

implicaciones políticas y pedagógicas. Desde la perspectiva del materialismo histórico y dialéctico, es posible identificar problemas en el enfoque constructivista, que limitado a los parámetros de la enseñanza centrada en los estudiantes, hereda las visiones burguesas del hombre y de la sociedad defendidas por Piaget.

**PALABRAS-CLAVE:** Educación Física escolar; Piaget, Jean, 1896-1980; Constructivismo (Educación), Educación - Filosofía.

#### **OS FUNDAMENTOS DA ABORDAGEM CONSTRUTIVISTA DA EDUCAÇÃO FÍSICA.**

##### **RESUMO:**

O presente trabalho tem o objetivo de analisar os fundamentos da abordagem construtivista da Educação Física. Para tanto, será feito um estudo do pensamento de Piaget, pois o renomado autor é a principal fonte dos pressupostos que embasam a referida abordagem, o que torna necessário o estudo de suas obras para uma melhor compreensão de suas implicações político-pedagógicas. Na perspectiva do materialismo histórico e dialético é possível identificar problemas na abordagem construtivista, que, presa aos parâmetros do ensino centrado no aluno, herda as visões burguesas de homem e de sociedade defendidas por Piaget.

**PALAVRAS-CHAVE:** Educação física escolar; Piaget, Jean, 1896-1980; Construtivismo (Educação); Educação – Filosofia.

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