
How 5th and 6th grade school books perceived girls and boys?

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1. Introduction

Actually, children and young people play in environments everyday more instable. Economical factors and different cultural heritage promotes several problems for the society, the school and the teachers.

Students from different social and cultural environments lead to specific educational policies by the educational system. But this is not an easy task. First, because the change cycle in a complex system are not in agreement with the actual politic. Second, because it is necessary to overcome the existent culture, to break down some mentality resistances and behaviour's.

The fundamental constitution of the portuguese republic (CRP), the universal human rights declaration, the portuguese basic law for the educational system (LBSE) and other legal documents present a convergent platform about the promotion of equality in education chances in relation to social, sexual and cultural diversity of the students.

The role of a democratic state should be to create conditions for the promotion of the equality. In other words, the educational policies must create the same chances for the access to education and to educational success for all the pupils and at same time respecting the individual characteristics of each one of them [1]. The school and other environments for education must accomplish this purpose.

The school, as an open social structure to this population, is a place for the formation of personalities, acquisition of knowledge, concrete competences and assumption of responsibility [2, 3]. Therefore, it is an optimal place to fight against asymmetry between different social and cultural groups, such as the inequality because of the sex.

Physical and sportive activities acquire a relevant role in the educational and formative process from young people, trying to increase their civic and cultural

competences. In fact, students can acquire personal and social competences to increase their understanding, respect, equality, cooperation, and other moral and ethical values, important for their formation as future citizens [4, 5].

Therefore, Physical Education (PE) and scholar sport must try to promote human and social values [6], must promote equal chances for all, through the correct selection of the physical and sportive activity, through the different background that creates and through the different strategies used [5]. Simultaneously, must stress its educational and formative role from the students in order to develop inter/multicultural education through the quality of the teacher's formation and didactical materials.

It is important to stress that these physical and sport activities should appear where sportive multicultural education happens [7] with an integrative and positive character in the life of those children [8]. Nevertheless, we can observe some difficulties for the PE to deal with difference, reproducing preconceptions and stereotypes [8, 9, 10].

If the curricular area of PE seems to be the most included scholar activity [11]; it is necessary to assume that the quality of formation of the teachers and of the didactical material (e.g., school manuals) must contribute for a more inclusive and a non-discriminatory teaching.

In this way, teachers (from PE) have an important role in the development of multicultural sports education [12] and to produce integrative practices with positive character in the school.

Teachers must recognize and answer to the needs of students from diverse social and cultural environments. Teachers must eliminate from their practise the "socially dominant conceptions" [8], such as, the soccer (or european football) and other sports that require strength, coordination and endurance for boys; or rhythmic activities, artistic gymnastic and other activities that require flexibility, agility and coordination for girls [13, 14] as well as, the inclusion of values, attitudes and behaviours related for the differentiation of the gender socially constructed [15]. Other wise it will be contributing for the discrimination process.

But for these, it is necessary to learn and interact with the diversity; it is necessary to investigate their practise, analyse the educational context in order to understand the attitudes, behaviours and situations that increase prejudices and stereotypes [3]. These analysis are also done by the selection and correct choose of the school manuals.

School manuals are done by authors, that make their own interpretation from the program, contributing for the sexist and stereotype conceptions, although reduce to silence by the illustrations [9, 16, 17, 18, 19, 20, 21, 22, 23].

This means that school manuals do not accomplish a role in the broadcast of knowledge, but also represent the world and the people through the values and models

that present. Therefore school manuals are important in the socialization process and in the identity formation of children and young people [15].

Therefore, the state has the mission of promote and guaranty equality of chances between men and women; assuring the rights, liberties and guaranties in every level. It is a question relevant to all society sectors, in a moment that what is teach and how is teach in our schools is an important battle field [24].

The purpose of this work was to evaluate if the illustrations of the 5th and 6th grade school manuals of PE reflect the equality of chances between boys and girls.

2. Methods

Nine school manuals of PE of 5th and 6th grades, included in the list of manuals for the year 2003-2004, by the portuguese Department of Basic Education of the Ministry of Education, constituted the sample.

All manuals presented the contents by thematic units. Therefore, it was done an analysis of the illustrations in the thematic units. A total of 2803 illustrations representing movements, technical elements and tactical situations had been analysed.

It was created an observation grid for the analysis of the school manuals. This instrument was composed by observational categories previously defined. It was considered the category sex (S) related to illustrations with boys and girls. The category sex was divided in four sub-categories: a) male (M) related to figures representing only male subjects; b) female (F) related to figures representing only female subjects; c) male/female (M/F) related to figures representing subjects of both sexes and; e) not identified (NI) related to figures where it is not possible to identify the sex represented.

For identification of each sub-category the following standards were used: a) images representing human bodies or parts of human bodies (e.g., hands, feet, head, legs, arms or trunk) allowed to identify the sex; b) all illustrations from the beginning until the end of the thematic unit were considered for the identification of the sub-category; c) all illustrations representing movements, technical elements and tactical situation were considered; d) in what concerts to the thematic unit of artistic gymnastic, the illustrations were divided in artistic gymnastic - apparatus, artistic gymnastic - floor and rhythmic gymnastic; e) in the case of the motor capacities thematic unit, the illustrations were divided in force, velocity, resistance, coordination/agility/dexterity and; f) whenever it was not possible to identify the sex of the subject, illustrations were considered as NI.

The accuracy intra-observer of the observation grid was evaluated using the coefficient of correlation intra-observer [25] in two school manuals for the sub-category

M, in all thematic units. The period between the first and the second analysis of the illustration was 72 hours. The coefficients of correlation ranged between 86% for the first manual and 96.5% for the second. Assuming that the reference level is 85% [25], it can be concluded that the observations were accurate.

For every school manual and for all thematic units, it was presented the frequency distribution to evaluate and compare the different sub-categories. After, it was done the content analysis. The next step was to compute graphics to simplify the reading of the results obtained from the observation grid. For each manual it was attributed a code corresponding to manual (M) and a number of order, in other words, M1, M2, M3, etc.

The results were organized in function of the sub-categories proposed. For the frequency distribution of the sub-categories, it was considered its distribution by school manual (graph 1) and by thematic unit (graph 2).

3. Results and Discussion

Graph 1 presents the frequency distribution of images of the sub-categories male (M), female (F), both sexes (M/F) and not identified (NI) in the nine school manuals. As it can be seen, the number of illustrations with male subjects was higher than the number of illustrations with feminine subjects. The only exception was the M5. The school manual with higher number of illustrations with both sexes was the M6 (37.6%) and the lowest the M8 (2.9%).

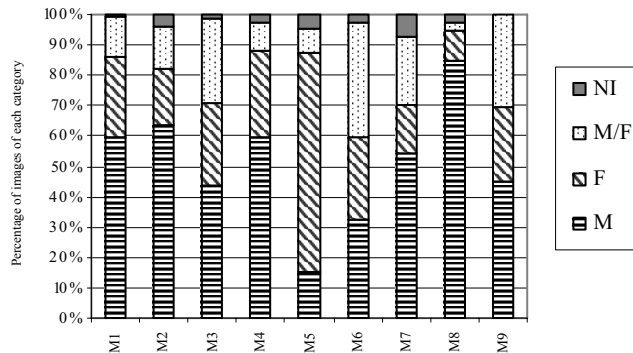
Therefore, from all the school manuals analysed, it was verified that the number of illustrations with male subjects was higher than illustrations with feminine subjects or both sexes. These results suggest that the school manuals analysed do not promote the principals declared in the CRP, in the LBSE, in the universal declaration of human rights and other legal documents. The privilege of male subjects in the school manuals and his association to certain physical and sport activities, try to relate those activities with masculinity.

The “Porto Editora”, leader in the business of school manuals (67% of the market’s share in public schools; 49% in private schools), in Portugal, from the 5th up to the 9th grade, edited the M1 and M2. The next company in the ranking is the “Texto Editora” (M3), then the “Areal Editores” (M4) and the “Edições Asa” (M5). At last, the M7 and M8 are edited by “Didáctica Editora” and “Editorial o Livro”. With the exception of the school manual edited by “Constância Editores” (M6) all others reflect inequalities between sexes, presenting stereotyped images and broadcasting discriminatory practises. Consequently, boys and girls in school and in society can reproduce these values.

This means that the only school manual that presented a balance between the three sub-categories (M, F and M/F) is edited by a publisher with a low share of the local market. Therefore, a small number of teachers and students possess such manual.

Although all school manuals presented illustrations with feminine subjects, the higher number of illustrations represented male subjects. In this way the illustrations seem to present physical and sport activities as a male universe, reproducing activities and values culturally related to male sex. Probably, authors do not have this kind of issues in their mind.

Synthetically, school manuals do not contribute significantly to promote real equality of chances between boys and girls. Illustrations apparently indicate, “who is who” in each physical and sport activity.



Graph 1. Frequency distribution of images of the sub-categories male (M), female (F), both sexes (M/F) and not identified (NI) in the nine school manuals.

Graph 2 presents the frequency distribution of images for the sub-categories masculine (M), feminine (F), both sexes (M/F) and not identified (NI) in all thematic units analysed.

The results revealed an obvious dichotomy between male and female representations. The male model is dominant in the several thematic units. Nevertheless, almost all school manuals presented female subjects with a higher or lower representation. This is a phenomena frequently reported in the literature [16, 17, 18, 19, 20, 21, 22].

In all motor capacities and sportive activities, exception to Coordination/Agility/Dexterity, Rhythmic Gymnastic, Rhythmic Activities and Table Tennis the male subjects presented a higher number of representations.

All collective sports used male subjects in the illustrations. This can be due to stratification and hierarchy of PE, assuming those thematic units as central [8]. Usually, Volleyball is considered as a sport activity for both sexes [14]. However, illustrations presented clearly a higher number of male subjects.

Running also presented a higher number of illustrations with male subjects (63.8%). However, in Portugal, the best role models in this sport are females.

Gymnastic exercises are also related to feminine sex [13]. But once again, the male representation was dominant. Probably authors were trying to motivate boys to the activity. Nevertheless, it was correct to exclude girls? If the real intension was to suggest that gymnastic it is not only for girls, authors also should present feminine representations in the thematic units of Force and Soccer. Moreover, when authors reverse the typical representations are promoting equality of chances?

Rhythmic Gymnastic presented a high number of feminine illustrations (84%). The result can be interpreted as this being an activity exclusively for girls, and not appropriate for boys [8]. But some questions must be raised: Is it the Rhythmic Gymnastic not adequate for boys? Isn't it an activity that should be included in the sportive culture of both sexes? How come, boys can criticise the activity if they do not know it?

The thematic units with higher number of illustrations representing both sexes (M/F) were the Pre-Sportive Games, the Rugby and the Traditional Portuguese Games. The result of the Rugby thematic unit was very interesting. A sport activity always related to aggressiveness and males presented a higher number of illustrations with M/F. Probably authors were trying to promote equality of chances between both sexes.

In the Badminton thematic unit, both sexes presented a significant number of illustrations (44.8%), when compared to male sub-category (48.2%) or female sub-category (6.8%). In the literature, Badminton is frequently related to feminine subjects [13]. So, Badminton can be a sport activity that begins the first steps to promote the equality of chances.

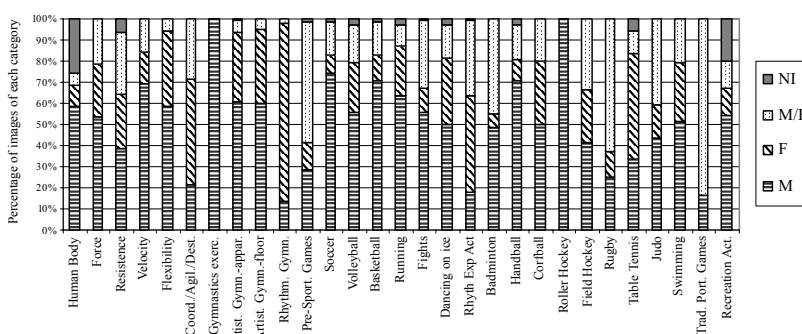
There were a significant number of illustrations, related to Human Body, classified as NI. In the thematic unit of Human Body, bodies are represented as asexual and ambiguous. The question is if the human body is neutral. Is it really neutral in PE and sport? As it is said by Botelho Gomes [7], the body it is no neutral. It is through the body that men and women obtain their sexual, ethnical and cultural identity. PE deals with the body. Therefore, the body should not be denied or hide in PE. PE and sport have a significant contribute for the social construction about the body. It is by the physical and sport activities that the body become a pedagogical object. By what was said, PE and sport can't dissociate from the human body.

In an overall perspective, analysing graph 2, authors of school manuals are contributing to broadcast prejudiced and stereotyped images of physical and sport

activities. At the same time, this position of the authors is in conflict with legal documents that try to reduce the social and cultural asymmetries in the school manuals [26, 27].

Authors probably made an effort to promote equality chances. However, they continue to overestimate the percentage of illustrations, in a given thematic unit, according to stereotypes about that activity.

The access of boys and girls to activities usually linked to opposite sex should be an equality right [6]. So, authors of school manuals should take in account these presuppositions.



Graph 2. Frequency distribution of images for the subcategories masculine (M), feminine (F), both sexes (M/F) and not identified (NI) in all the thematic units analysed.

4. Conclusions

It is possible to conclude that relatively to the category sex exist clear asymmetries between masculine and feminine representations. The masculine model is dominant in all thematic units in each one of the school manuals. In almost all manuals, girls appear in higher or lower representation degree, according to the thematic unit evaluated. In all motor capacities and sportive activities, exception to Coordination/Agility/Dexterity, Rhythmic Gymnastic, Rhythmic Activities and Table Tennis the male subjects presented a higher number of representation. The Pre-Sportive Games, the Rugby and the Traditional Portuguese Games are sportive activities where the images with both sexes appear. Only the manual published by the “Constância Editores” revealed a balance between the three subcategories analysed.

We can also notice that the masculine sex appears associated to certain thematic units as being proper culturally of the male sex. For example: the Force capacity, the

Soccer, the Basketball, the Fight, the Roller Hockey, the Field Hockey and the Judo, activities that usually are esteemed by masculine characteristics. The same tendency was revealed for the feminine sex (e.g.: Coordination/Agility/Dexterity, Rhythmic Gymnastic and Rhythmic Activities).

The Pre-Sportive Games, the Badminton, the Rugby and the Traditional Portuguese Games were the thematic units with the higher representation of the subcategory M/F.

In this context, it seems that the 5th and 6th grade school books of PE reflect gender prejudices and stereotypes, putting in cause the equity and equality of chances between boys and girls in this subject. Authors and editors should revise the school manuals of PE, promoting adequate illustrations according to the heterogeneities of the pupils. The school manuals of PE must to transmit democratic values of citizenship, needs to diversify the knowledge contents and to use them to promote levels each time more raised of equality treatment between pupils. However it's necessary to have politic will and responsible legislation for appositive in the formation of these resources as well as their authors.

Therefore, the function of the PE teacher is to renovate the act to teach and become a mediator of the knowledge promoting a really equality of changes. The PE teacher has to leave of being an informer to be a FORMADOR. Other wise it will be generalized the exclusion and the non social and cultural integration placing in cause social justice and the universality of the social and cultural diversity.

5. References

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