THE FEMALE PHYSICAL EDUCATION TEACHER IN PRIMARY TEXTBOOKS

LA MAESTRA DE EDUCACIÓN FÍSICA EN LOS LIBROS DE TEXTO DE PRIMARIA

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ABSTRACT

The objective of the present study is to analyse how the female physical education teacher is represented in the textbooks of this area of expertise, in the primary education stage. A quantitative study is carried out showing a high number of female teachers with regard to the male physical education teacher, mainly in the first cycle of Primary Education. Thereafter, a qualitative scrutiny was performed, through content analysis, identifying a stereotyped treatment of the physical characteristics of the teacher, by representing a teacher who is eminently young, thin, wearing sports clothes, has fair skin, and without disabilities. But, at the same time, a more open and participative image appears in relation to the role represented, since the physical education teacher can be seen in the peripheral area of the image, with an active attitude, in a space not necessarily associated with sports, without teaching complements, imparting content related to group-class management and games.

KEY WORDS: stereotype, image, content analysis, teaching staff, textbook, physical education, primary education.
RESUMEN

El objetivo del presente estudio es analizar cómo se representa a la maestra de educación física en los libros de texto de esta área, en la etapa de Educación Primaria. Se realiza un estudio cuantitativo que muestra un número elevado de maestras con respecto al maestro de educación física, principalmente en el primer ciclo de Primaria y otro cualitativo, a través del análisis de contenido, identificando un tratamiento estereotipado en cuanto a las características físicas de la docente, al representar a una maestra eminentemente joven, de raza blanca, delgada, con ropa deportiva y sin discapacidad. Pero a la vez, aparece un tratamiento más abierto y participativo en cuanto al rol representado, ya que la maestra de educación física aparece en la zona periférica de la imagen, con actitud activa, en un espacio no necesariamente deportivo, sin complementos docentes, que imparte contenidos relacionados con la gestión del grupo-clase y los juegos.

PALABRAS CLAVE: estereotipo, imagen, análisis de contenido, profesorado, libro de texto, educación física, educación primaria.

INTRODUCTION

The textbook is defined as a piece of material closely interconnected to the teaching-learning process by Rodrigues and Darido (2011). Its purpose is to provide aid regarding planning, intervention and evaluation of the teaching staff besides contributing to the learning of the pupils.

The textbook consists of both text and images. However, those images are not a simple aesthetic resource employed to make it more attractive; they fulfil a didactic function which complements and makes easier the understanding of concepts and suggested tasks. They must support the messages present in the text and, in some teaching levels, they become the main source of information (Brugeilles and Cromer, 2009).

Since they operate with iconic language, they are particularly relevant in order to link messages, very often filled with stereotypes. They are perceived via sensitive and perceptive channels and they tend to avoid an explicit and conscious analysis. In fact, in primary education, the drawings, even if they represent an image far from the truth, are the most represented iconography in textbooks (Terrón and Cobano-Delgado, 2009).

In the case Physical Education (PE) at school, the use of this type of publications as curricular material is of a more recent expansion than the rest of school subjects. This is due to the fact that technical resources and media linked to physical-sport activities dominated in this area then. More specifically, after the General Organic Law on the Educational System (or LOGSE, Spanish acronym), the publishers began to show more interest in this sort of printed resources in the Physical Education domain which, up until then, did not imply pupil textbooks (Molina, Valenciano and Úbeda-Colomer, 2016).
Different types of stereotypes can be found in this curricular material. According to Galán (2007), a stereotype is “(…) an image which is widespread or commonly accepted by a group – about other groups or people- that is prolonged in time and may acquire the status of indisputable truth (p. 230).

Concerning physical activity and sport, several studies show it is possible to find those fixed ideas in magazine publicity pictures (López-Villar, 2011), videogame covers (Ramírez-Macías, 2011) or PE textbooks both in primary (Moya, Ros, Bastida and Menescardi, 2013; Moya-Mata, Ruiz, Martín, Pérez and Ros, 2017) and secondary (González-Palomares, Táboas-Pais and Rey-Cao, 2017) stages in education.

The perception of the PE teaching staff is no exception. A relevant part of society shows a stereotyped approach to those education professionals since they imagine a young, fit and outgoing person. They even set a PE area image (Pérez, Rivera and Trigueros, 2014) very often excessively simplified and removed from reality (Pérez-López, 2013). In the same way, among teaching fixed ideas and the education degree, it is possible to find the feminization of the area. As Giró (2009) remarks, the confirmation of a large proportion of women must be understood “as the result of interrelated processes of a historical, sociological, political, economic, religious and cultural nature” (p. 17). Although concerning PE and sport, the opposite happens with a majority of male students in those degrees (Porto, 2009).

Due to what was mentioned above, the PE textbooks can become a main referent when it comes to evaluating teachers as a collective from a critical self-analysis approach (Moya-Mata and Ros, 2015). Nonetheless, researches in Spain are scarce. It is only possible to find a paper by Moya-Mata and Ros (2015) which analyses the PE teacher image in textbooks of the same area of expertise in the primary education stage. The results show a majority of female school teachers.

Other objects of study from akin research papers are TV series in which the image of the PE instructor is analysed (Galán, 2007; García-Muñoz and Fedele, 2013; González-Arévalo, 2006) in view of the great transcendence that affects the shaping of the PE for public imagination.

Namely, in the paper by González-Arévalo (2006), the perception of PE lecturer throughout the media is: “(…) negative, retrograde, unfair, decontextualized and far from current reality (p. 28). This makes the TV stereotype of a PE teacher that of a: “young, handsome or pretty, tall, hunky boy or girl wearing tight sports clothes. As unavoidable accessories to the implementation of the lessons (...) appear the clothing, a whistle and a stopwatch.” (González-Arévalo, 2006, p. 29).

In the study signed by Pérez et al. (2014), three Spanish TV series (“teen series”) set in a school context were used as samples. In the mentioned paper, the figure analysed depicts people with low intellectual formation, more concerned about their physical appearance: “(…) between 25 and 40 years old, who stand out due to their physical attractiveness (...). They emerge as “body models” to their pupils,
causing their admiration” (p. 863). Thus, according to this concept, the working life of a PE lecturer will not exceed the age of 45-50. Not to mention the masculinisation of the occupation, since out of the 5 teachers featured in the analysed TV series, one was a woman while four were men.

From these stereotypes and clichés linked to PE and the teacher of that subject, the restlessness arises together with the need of checking whether primary education PE textbooks keep this impression or not, particularly in the case of PE female teacher.

Taking this in consideration, the aim of this paper is to analyse study the female PE teacher portrayed in textbooks and ascertain if it proceeds transmitting the fixed ideas associated with this area of expertise in the primary education stage. This purpose can be sectioned in the following objectives:

- Analyse the physical traits of the PE teacher in the selection of the sample chosen.
- Detect and identify the existing stereotypes in the PE teacher image from the sorted illustrations.

**METHOD**

This paper is addressed both from a quantitative and a qualitative approach. On one side, an empirical, descriptive and comparative (Heinemann, 2003) and frequency (Piñuel, 2002) study is performed employing content analysis as core technique (Banks, 2010; Neuendorf, 2011). At the same time, a qualitative research is executed to interpret reality and identify the presence or lack of genre stereotypes of the female PE teacher (Gibb, 2012). The images which appear in PE textbooks (photographs and drawings) are the sampling units.

**Sample**

The sample consists of 45 pictures from primary education stage PE textbooks belonging to six Spanish publishers: Anaya, Bruño, Edelvives, Santillana, Serbal and Teide; in which the PE specialist figure appeared.

The inclusion criteria employed for selecting the curricular material were that they were published in the Spanish Education System within the framework of the Organic Law on Education (better known as LOE because of the Spanish acronym) belonging to the primary education stage inside the area of PE and a female teacher specialist in this field could be identified.

**Data collection tool**

The instrument used for the illustration examination is part of the categories system -utilised in the research signed by López-Crespo and Castejón-Oliva (2017) about the evaluation of the women represented in a sporting fashion- and a second categories system designed for analysing the specialist teacher figure represented in PE textbooks.
The development of the previously mentioned tool was performed after the meeting of a group of scholars (two professor doctors at the Physical Activity and Sport Sciences Faculty – of the Catholic University of Valencia-, a professor at the Learning Sciences Faculty and a professor at the Education Faculty – both from the University of Valencia- and two active PE teachers with 5 years primary education seniority)… One of the essential premises was that the sheet provided, in a simple and operative manner, the observer’s assessment of the different analysed items.

Once the categories system was produced and validated by the mentioned scholars, a pilot test was executed with ten images, randomly selected, to evaluate the appropriateness of the mentioned instrument.

In order to complete the pilot test, three people were chosen to guarantee the reliability of the observations, two people being the minimum number of coders required for content analysis (Neuendorf, 2011). The final categories system defined a set of dimensions, categories and subcategories adopted for the examination of these pictures (Table 1).

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>CATEGORIES</th>
<th>SUBCATEGORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image technical features</td>
<td>Type of picture</td>
<td>Drawing, Photograph</td>
</tr>
<tr>
<td></td>
<td>Colour</td>
<td>Colour, Black and white</td>
</tr>
<tr>
<td></td>
<td>Size</td>
<td>Very big, Large, Medium, Small</td>
</tr>
<tr>
<td>Physical traits of the teacher</td>
<td>Age</td>
<td>Young, Adult</td>
</tr>
<tr>
<td></td>
<td>Race</td>
<td>White, Black, Latino American, Others</td>
</tr>
<tr>
<td></td>
<td>Somatotype</td>
<td>Ectomorph, Endomorph, Mesomorph</td>
</tr>
<tr>
<td></td>
<td>Attire</td>
<td>Sportswear, Streetwear</td>
</tr>
<tr>
<td></td>
<td>Disability</td>
<td>With disability, Without disability</td>
</tr>
<tr>
<td>Role of the teacher</td>
<td>Image area</td>
<td>Central, Peripheral</td>
</tr>
<tr>
<td></td>
<td>Location</td>
<td>Sportive, Non-sportive, Natural environment</td>
</tr>
<tr>
<td></td>
<td>Attitude</td>
<td>Active, Passive</td>
</tr>
<tr>
<td></td>
<td>Teaching accessories</td>
<td>Whistle, Notepad</td>
</tr>
</tbody>
</table>
The categories system consists of three main dimensions: image technical features, physical traits of the teacher and role of that person. In the one linked to image technical features appear the sections: (a) type of picture, which establishes the printed illustration format –drawing or photography-; (b) colour or black and white, and (c) image size –very big if it takes more than a page, large in case it fills two thirds or more, medium when it occupies one or two thirds and small if the image takes less than a third of the page.

Regarding the physical traits of the teacher, the following categories are considered: (a) age, it determines the approximate chronological stage of the person in the picture: young if the appearance shows an age between 19 and 35, and adult when the person seems to be among the ages of 36 and 65 years old; (b) race, according to the colour of the skin, eyes and the width of the nose –white, black, Latin American and other races--; (c) somatotype, which is related to the morphologic characteristics of the depicted people depending on their osseous, fatty or muscular predominance –ectomorph, endomorph and mesomorph respectively--; (d) attire reflects the clothing of the teachers who appear represented determined by if it is: sportswear, streetwear or other; and, last, (e) disability, according to the presence or lack of physical, sensory or mental limitations –with disability and without disability-.

Regarding this last category, due to the variety of existent disabilities that are hard to appreciate in a picture –both drawing and photograph-, the paratext provides the information.

The third dimension, the role of the teacher, matches with the function given to the PE lecturers and it is defined by categories as follows: (a) image area, considering the position of this specialist in the picture –central when it occupies the centre or peripheral if it appears in the zones near to the edge of the image--; (b) location, taking into account the atmosphere and the physical environment surrounding the teacher –sportive if the picture reflects markers of a space destined to sports activities (such as football pitches, the school sports court or the gym, but not exclusively); non-sportive, in case there is a lack of the above mentioned markers (as could be a park); and natural environment when the markers are those of the natural world (for example, trees, mountains, a sea or a river, a location little altered by man)-; (c) attitude refers to the state of passivity –does not present movement- or activity –presents some sort of movement whether the person is standing, sitting, etc…- of the teacher; (d) teaching accessories are those related to the action of lecturing –a whistle, a notepad, both or none--; and, last, (e) content imparted which is linked to the PE content area shown in the images.
As far as the content goes, first, it is important to mention the motor-perceptive skills which derive from the central nervous system such as the body schema, spatiality and temporality. From the combination of those emerge intermediate abilities as could be the laterality, rhythm, space-time structuring, equilibrium and coordination (Castañer and Camerino, 1992). Second, we must introduce the expressive activities. They are those involving corporal expression, mimics, shadow play, role playing and dancing as means of displaying an aesthetic perspective. Third, the games have as their main feature the free acceptance of a set of simple rules which are modifiable and adaptable to the group, including popular and traditional games or in the nature. These are the so called multi-adventure activities unfolded in three surfaces: earth, water and air. Some examples might be mountain cycling, climbing, skiing, orientation, paragliding, hiking, surfing, windsurfing, etc. The fourth content area refers to complementary activities regarding assessment and/or measurement such as pulse checking, the height, weight… or tests as might be those of physical condition. Lastly, group-class management needs to be mentioned. In this subcategory, it is possible to see represented the other actions involved in PE teaching practise as are game explanations, rules, routines, introducing new pupils to the group-class or first aid, among others.

Procedure

First of all, the images in which the PE specialist teacher figure appeared were selected, discarding those that contained pictures of other teaching staff or had no lecturer figures at all. The mentioned illustrations were included in an Excel template to enable data percentages needed for this part of the research, that is, the quantitative analysis.

After this, pictures with female PE specialist representation were chosen so as to perform the qualitative analysis via the abovementioned categories system.

STATISTICAL ANALYSIS

Once all the data from the sample were obtained, a frequencies descriptive analysis was executed in order to determine and render the results of this study in a clear and precise manner. Then, it was necessary to execute a qualitative analysis of the female PE specialist figure portrayal. The information processing was performed via the programme IBM SPSS version 23.0.

RESULTS AND DISCUSSION

Even though, as noted above, we only count with a study about the teacher figure representation in PE textbooks (Moya-Mata and Ros, 2015), similar researches will be taken into account for the discussion. They will be those involving Spanish TV series (González-Arévalo, 2006; Pérez et al., 2014).

Concerning the image technical features, the predominant “type of picture” among those analysed are colour drawings (100%). This dominance against photographs and black and white is widespread in the primary education stage.

With respect to “image size”, the prevailing one is the small (55,17%), against large (27,58%) and medium (17,25%), respectively. These results match akin PE studies (Moya-Mata and Ros, 2015; Moya et al., 2015; Moya-Mata et al., 2017). According to García and Ponsoda (1997), larger colour pictures (Aparici, García-Mantilla, Fernández and Osuna, 2009) attract attention of the receiver better than those of a smaller size in black and white. In this research, the predominance of smaller photographs implies a dominance of text over illustrations. However, this is, in turn, balanced with the total amount of colour images, generating more fixing and expressiveness from the reader (Aparici et al., 2009; López and Castañer, 2006).

In relation to the educational cycle to which the analysed images belong to, the first period is the one with a higher number of female PE teacher representations (62%), followed by the second one (24,27%) and the third cycle of primary education (13,8%). This coincides with the previous research signed by Moya-Mata and Ros (2015) indicating the representation of the female lecturers is more common in the first cycle while it diminishes as the educational period is more advanced. We should not forget the fact the access of women to the teacher occupation in the XIX century was an extension of the motherhood and care duties. This makes the early stages of this profession some sort of maternity (Ballarín, 2001). The social context generalization of the teaching concept as an adaptation of motherhood was the base for the feminization of this career (Giro, 2009).

Out of the 45 analysed illustrations, 29 depicted the figure of the female PE specialist teacher. That is, 64,4% of the images –being Anaya the publisher with the highest number of pictures with a 22,2% and Bruño the one counting with the lowest number since it does not employ any PE specialist illustrations- (Table 2).

<table>
<thead>
<tr>
<th>PUBLISHER</th>
<th>PE TEACHER IMAGES</th>
<th>FEMALE PE TEACHERS</th>
<th>% FEMALE PE TEACHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaya</td>
<td>12</td>
<td>10</td>
<td>22,2</td>
</tr>
<tr>
<td>Bruño</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Edelvives</td>
<td>2</td>
<td>2</td>
<td>4,4</td>
</tr>
<tr>
<td>Santillana</td>
<td>6</td>
<td>1</td>
<td>2,2</td>
</tr>
<tr>
<td>Serbal</td>
<td>15</td>
<td>7</td>
<td>15,6</td>
</tr>
<tr>
<td>Teide</td>
<td>10</td>
<td>9</td>
<td>20,0</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>29</td>
<td>64,4</td>
</tr>
</tbody>
</table>

This result matches the previous research from Moya-Mata and Ros (2015) regarding the higher female PE teacher representation as opposed to the masculine one in primary education PE textbooks. Nevertheless, it comes to
discrepancy with the study by Porto (2009) in which it is stated that physical activity and sport degrees are masculinised. In this way, the outcome is not related at all with the masculine model PE teacher depicted in several Spanish TV series analysed by González-Arévalo (2006) and Pérez et al. (2014). Thus, it means a step forward towards coeducation and equal opportunity of both sexes in some publishers. The Organic Law on Education, in one of its educational principles and purposes, fosters effective equality among men and women, as happens, also, with rights. In the same vein, the 3/2007 LOE (Spanish acronym for the Organic Law on Education), dedicated to both sexes effective equality, remarks in its 24th article the lack of distinction principle, the removal and rejection of sexist content and behaviour and men and women stereotypes, among other actions, with special regard to educational material.

Concerning the female PE teacher physical traits, the predominant “age” is young in the 100% of the images. This matches with the PE teachers in textbooks study from Moya-Mata and Ros (2015) as does with the Spanish TV series ones by González-Arévalo (2006) and Pérez et al. (2014). It is believed it is due to the concept of youth being the epitome of beauty transmitted by the television as a subliminal message. The presence of negative stereotypes affecting elderly people is impossible to deny and provokes a decrease in their presence in primary education textbook illustrations.

Focusing in the “race”, the 100% of female PE teachers depicted are white raced. This situation coincides with the teacher image in PE textbooks (Moya-Mata and Ros, 2015) as well as Spanish TV series (González-Arévalo, 2006; Pérez et al., 2014). Hence, it seems that, even nowadays, there is no place for lecturers from other races without taking into account the Spanish demographic situation of multiracism. According to the data provided by the Spanish National Statistics Institute (INE, 2016), the provisional outcome points that 9,5% of the Spanish population corresponds to foreign residents, which is the highest percentage in the last years –it being 10,7% in 2014, 11,7% in 2013, and 12,1% of the population in 2012-. Moreover, there is a 100% thin or ectomorph female PE teacher dressed with sportswear, the same as reflected in the primary education PE teacher research by (Moya-Mata and Ros, 2015).

With respect to “disability” representation, the 100% of the analysed images portray a female PE teacher with no limitations, concurring with the findings of (Moya-Mata and Ros, 2015) and, in the case of Spanish TV series, with the ones signed by (González-Arévalo, 2006; Pérez et al., 2014). This invisibility of disability in TV series set in educational contexts and, more specifically, PE textbooks, does not favour social inclusion of this collective, particularly in the teaching environment. It is important to emphasise that there is a percentage of places reserved for people with disabilities in the competitive examinations for different teaching bodies and specialities. In fact, one of the challenges set by the United Nations Children’s Fund (2013) is to change traditional schooling for an inclusive version in order to reduce the prejudices and stereotypes of the general public about physical, mental and sensory diversity. This calling into question should be broaden to education professionals since, as the UN (2006) states
about impediment, countries must promote the raise of awareness about disabilities and the contribution by people with limitations.

In relation to the teaching role associated to the female PE teacher in textbooks, the image area taken is, mainly, peripheral (65.5%) as opposed to the central one (34.5%) prevailing in the research about female representation in sports illustrations by López-Crespo and Castejón-Oliva (2017).

As for the location analysis of the images, the 62.1% display the PE teacher in a non-sportive place, leaving a 27.6% and a 10.3% for sportive and natural environment locations. This implies that the function female PE teacher is more didactic than sportive in these cases.

It is possible to appreciate an eminently active attitude (86.2%) compared to that characteristic of a mere passive spectator (13.8%) so prominent in half of the study subjects from the research of López-Crespo and Castejón-Oliva (2017). A more participative, conversational teacher is shown constantly controlling the teaching-learning process of the group-class.

Furthermore, the PE specialist tends to appear with teaching symbols or accessories as might be a whistle and a stopwatch or a notepad both in PE textbooks (Moya-Mata and Ros, 2015) and the analysed Spanish TV series (González-Arévalo, 2006). In this research, however, in 51.7% of the samples the female PE teacher was represented with no teaching accessories, followed by whistle and notepad (24.2%), just a notepad (17.2%) and, last, just a whistle hanging from the neck (6.9%). This outcome distances itself from the traditional PE teacher image linked to a whistle, stopwatch and a notepad. It reflected a person who cared more about the result –employing specific performance tests and trials- than the process, a concept far from current physical education.

Lastly, the content imparted associated with the female PE teacher in textbooks is the one related to group-class management by 35%. This area includes PE area rules or the obligation of participating in the session with appropriate clothing and footwear (Figure 1). The second most relevant topic is games (31%) and, after that, motor-perceptive skills (13.8%), activities developed in the nature (10.3%), complementary tasks (6.9%) and those of an expressive nature (3.5%). The present results deviate from those obtained in the researches involving PE textbooks (Moya, Ros and Menescardi, 2014) and Spanish TV series (López-Pérez, 2013). In both of them, the most represented physical activity in the primary education stage was the physical condition.

In view of the above considerations, on one side, it can be perceived that the PE area breaks the traditional and mechanic image –more concerned about performance than the pedagogic process-. Nevertheless, on the other side, it maintains the idea of “male” content – such as sports- with a lot more social reputation and that is imparted exclusively by male but no female PE teachers. The opportunity to highlight encouraging healthy lifestyle or physical activity habits through PE is wasted. The same happens in Spanish TV series (López-
Pérez, 2013) even if we are aware of the severe consequences sedentism inflicts to child and teenage population (Strasburger, Jordan and Donnerstein, 2010).

CONCLUSION

The representation of the female specialist lecturer in PE textbooks in the primary education stage allows determining what is the image linked to this section of the teaching staff and shaping the pupils’ perception about the subject.

The female PE teacher picture shows both traditional stereotypes and a severance from them. On the one hand, the widespread fixed ideas are reflected in the physical traits -depicting her as a young, thin, white-raced person in sportswear and with no disabilities- and in the teaching role – peripheral image positioning, non-sportive locations, game and attitude aspects as content related to group-class management, for example, the rules-.

On the other hand, the manner in which she is represented implies distancing from the most traditional PE subject fixed ideas. This is due to the teacher being depicted in an active attitude, controlling and participating in the PE session alongside the pupils and with no teaching accessories. This breaks the widespread vision associating sports and performance with the area of physical education in which the PE specialist wears a whistle around the neck and carries a notepad.

The results inspire opening a new investigation line approaching other types of media; TV, for instance. Due to the educational implications they involve, textbooks are a pedagogic and instructive material present in most educational centres and which contribute in creating occupational identities and stereotypes around them.

The limitations of the current research and its outcome must be understood as a sample of PE primary education stage textbooks published under the Organic Law on Education. Future investigation lines might focus on assessing PE textbooks distributed under the LOMCE (Spanish acronym which stands for “Organic Law on the Improvement of Educational Standards”) and/or other educational stages.

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