SECTION: ARTICLES

Perceived importance of motor skills in Early Childhood Education in schools in Vigo (Spain)*

Yolanda Alonso Álvarez¹ ORCID: 0000-0003-2953-8552 José María Pazos Couto¹ ORCID: 0000-0001-7234-6834

1

Abstract

Up to the present, a lot of documentation has been published about the importance of motor functions in the integral development of individuals. This research intends to reach out the knowledge of the concrete reality of motor practice and find out the importance given to it in the second cycle of Early Childhood Education in the schools of Vigo, Spain. A mixed methodology was chosen so that both qualitative and quantitative data could be analyzed. As part of the study, 43 schools in Vigo were visited, 50 percent of the whole resulting in a total sample of 50 questionnaires filled by the professionals in charge of providing motor skills education in those centers. Likewise, Verification Reports of Galician universities and Decree 330/2009 on Early Childhood Education were analyzed in this research. Results allow us to conclude that all professionals think it is important to develop motor skills in kindergarten classrooms, but more than half, (58 percent) indicate that work put into it is not enough. Furthermore, it was observed that the training on motor skills in Galician universities is scarce.

Keywords

Motor skills - Early childhood education - Teachers - Difficulties - Programming.

^{*}English version by Interlingua Traducción. Contact: coruna@interlingua.es.

¹⁻ Universidad de Vigo, Pontevedra, España. Contactos: yoalonso18@gmail.com; chema3@uvigo.es

Introduction

Movement forms an essential part of a human being's life. Through movement, a fundamental instrument of social interaction, we tackle basic survival tasks, explore our environment, relate to society and communicate (LATORRE; LÓPEZ, 2009).

Motor competence considers movement to be a means of communication, expression and relating to others, playing a fundamental role in a child's harmonious personality, given that it enables children not only to develop their motor skills but also to integrate thought, emotions and socialisation (RAMOS et al., 2016).

In this regard, López (2011) shows that movement education is vital for the systematic development of body movements, the aim of which is to promote the achievement and development of psychomotor habits, abilities, aptitudes and skills that contribute towards a child's full and harmonious overall development.

Bearing in mind the above, motor competence is a fundamental part of a human being's formation, as it contributes towards the overall improvement of mind, body and spirit, through rationally-planned motor activities (BUCCO; ZUBIAUR, 2015).

The studies carried out to date have stressed the need for movement education to have a comprehensive and integrated view of the subject as a psychophysical unit, concentrating on the development of the relational, communicative, expressive and operational conditions of personality as a part of a person's manner, how they act and how they relate to others (GUTIÉRREZ; CASTILLO, 2014).

The importance given to the body in the school environment is without question, as everyday occurrences and experiences are a huge source of learning. As such, being able to experience one's own body in such an environment, through motor exercises, guarantees that schools are not only a place where knowledge is transmitted but also a space for creation and communication, where the body enables children to learn (MARTÍN; RODRÍGUEZ, 2010).

In the classroom, motor competence is essential, as it stimulates pupils' motor activity, allowing them to achieve a significant level of maturity in each of their basic movement patterns, in their coordination, motor competence, laterality, object manipulation, balance, etc. This will all form the necessary foundation to prepare pupils for the future (PALMAR, 2014).

Gutiérrez and Castillo (2014) emphasise that the correct development of corporality in the classroom has an impact on emotional development as well as on rational and conceptual learning. For the authors, non-sedentary educational experiences, based on the exploration of space through experience, with activities which invite pupils to relate to one another, will be the way in which primary school children fully develop their motor skills. They also affirm that motor activities which facilitate an experiential space-time relationship will aid the body schema concept, respiratory awareness and management, laterality development and improved balance control.

In the classroom, motor skill teaching content should be based mainly on stimulating basic motor skills and all of the perceptual motor abilities, without ignoring the link with cognitive and emotional aspects (LATORRE; LÓPEZ, 2009).

Along the lines of Núñez-Rivas and other authors (2015), the relationship between cognitive function and physical movement requires school curricula's teaching and learning processes to consider children as active, engaged, creative and critical.

Lastly, bearing in mind that motor competence should be the cornerstone of Preschool Education, a greater presence in the curricula of trainee teachers is necessary (VALDEMOROS et al., 2014).

Methodology

A mixed methodology was adopted to carry out the research, as we used quantitative and qualitative data collection to determine, through numerical measurement, the statistical analysis and the analysis of texts, as well as the importance that motor competence is given in Pre-school Education classrooms (HERNÁNDEZ, 2014).

With regard to its objective, the aim of this research is to take a closer look at understanding the specific reality of motor exercises and find out the importance it is given in the second cycle of Pre-school Education in Vigo's schools.

State and state-subsidised Pre-school Education Institutions in Vigo made up the sample used. According to the information contained in the Directory of educational institutions, there are currently a total of 86 state and state-subsidised pre-schools in Vigo.

The criteria used to select the schools was based on their being state or state-subsidised and providing the second cycle of Pre-school Education. The total number of schools visited and which took part in our study was 43, that is, 50% of the overall number.

With regard to the instruments, to carry out our research we used the *Memorias Verifica* ('Verifica" records) corresponding to the teacher training degree courses from Galicia's three universities, that is, the university degree evaluation protocols, which contain the subjects each university offers and which must be taken in order to obtain the university degree, divided up into different areas of knowledge. The *teaching guides* for the subjects taught in the six faculties of Education Sciences were also used, with the aim of finding out the importance given to motor competence in teacher training degree courses at Pre-school Education level.

We also carried out an analysis of Decree 330/2009 (ESPAÑA, 2009), concentrating on the sections that covered motor competence in Pre-school Education classes, to find out exactly how important the Regional Education Board itself considered it to be.

Lastly, we also used a mixed-response *questionnaire*, drawn up with validated questionnaires in mind, used in research by authors such as Martín and Soto (2008), Martín and Rodríguez (2010), Martín, Rodríguez and Gómez (2011), Moreno and other authors (2004), Lasaga, Campos-Mesa and Ríes (2013), as well as Valdemoros and other authors (2014).

When the questionnaire was drawn up, and before being deployed, it was reviewed by the team responsible for psychomotor education at Monte do Alba Pre-School. After verifying the time needed to complete it and clarifying certain questions, we visited the different pre-schools located in Vigo.

The questionnaire was intended for the person responsible for teaching psychomotor education at each of the centres visited. In some cases, the schools did not have a specific person to teach this subject, which was the responsibility of the class tutors. Therefore, in some schools, the questionnaire was filled out by the person responsible for psychomotor education while, in others, this was done by the stage tutor or coordinator, providing us with more questionnaires filled out than schools visited, that is, a total number of 50 questionnaires.

Accompanying the questionnaire was a letter of introduction in which we stated who we were and explained the reason why we wanted Pre-school teachers to answer the questions contained therein.

The main body of the questionnaire is made up of 24 open-ended and closed-ended questions, divided up into four thematic areas: identification, teacher training, opinion on motor exercises and classroom planning and dynamics.

The *identification* section is comprised of five questions, from 1 to 5, in order to gather information about teachers, focussing on gender, age, type of educational institution, number of pupils and the facilities available for motor skills education.

The *teacher training* section is comprised of questions 6 to 13, and its aim is to find out whether the teachers did their training in Galicia, when they finished their studies and how long they have been working in their profession. We were also looking to obtain information on the number of motor skills classes they were taught, and whether or not they feel that they have sufficient knowledge in this subject matter, if they currently receive training or if they think they need it.

In questions 13 to 19, in the section on *opinion on motor exercises*, we begin to look at whether or not teachers like motor competence education, if they think it is important to focus on it in class, the importance it is given, what aspects they think it is most necessary to work on and what the difficulties are in practice.

Lastly, in the section on *classroom planning and dynamics*, we aim to obtain information on how motor competence is dealt with in the school and in the classrooms themselves, that is, on its presence in the PEC (the specific school's education plan) and if it is dealt with separately from the other areas. We also focus on the hours given over to motor competence, asking how much time is devoted to it, if it is planned in conjunction with the tutor and, if it is programmed systematically, what the aspects worked on in the sessions are.

Insofar as the procedure is concerned, this research was carried out between November 2015 and April 2016. In November, we began reviewing different documentation and research relating to motor competence, showing greater interest in questions focussing on motor skills in Pre-school Education classes.

Having finished our review, in November, we drew up the questionnaire. When it was finished, it was filled out by the teaching staff responsible for motor competence at Monte do Alba Pre-School. They proposed making some changes and also offered their opinions. Once the questionnaire was revised and modified, in December we began to visit the different Pre-schools in Vigo, contacting the staff responsible for motor competence in each one. This phase lasted until the beginning of February.

During the data collection, in the months of December and January, we also focussed on drawing up the theoretical framework. For its part, we began the analysis of

Decree 330/2009 (ESPAÑA, 2009) and the 'Verifica' records, as well as the teaching guides for the pre-school teacher training degree courses taught at the different universities in Galicia, in order to determine the extent to which motor competence is present in these documents, and how it is dealt with.

In February, we began registering the data from the questionnaires, setting out the responses given by the participating teachers in tables created using Excel. We grouped together, on the one hand, the closed-ended responses, which provided us with the numerical data to analyse the percentage of responses given and, on the other, the short responses, which enabled us to obtain participants' opinions, classifying and grouping them.

Finally, in March, we carried out the analysis of the resulting data, using a triangulation of the data obtained, giving rise to the discussion and the conclusions.

Analysis

Analysis of motor activity as part of the Pre-school Education curriculum

Decree 330/2009 (ESPAÑA, 2009), which regulates Pre-school Education in Galicia, indicates that the curriculum for this stage is aimed at achieving full and harmonious development in the different fields (physical, motor, emotional, affective, social and cognitive) and to provide education that contributes to and facilitates such development. It also affirms that development and learning are processes that occur thanks to pupils' interaction with their environment.

The Aims of Decree 330/2009 (ESPAÑA, 2009) emphasise the importance of motor competence and corporality, pointing out that "the purpose of child education is to contribute towards the physical, emotional, social and intellectual development of children" (p. 10774) and that "pre-school education will focus progressively on emotional development, movement and body control habits, [...]" (p. 10774).

Its importance is also emphasised by objectives affirming that the aim of pre-school education is to "understand one's own body and that of others, its capabilities and to learn to respect differences" (p. 10774) and to "feel gesture, movement and rhythm as resources for expression and communication" (p. 10774), among others.

Referring specifically to the curriculum for Year 2, the aims in the section of the abovementioned document titled "Area: knowledge of oneself and personal autonomy" include the development of the process of personal growth, also emphasising increased motor control and the interaction of children with the environment.

This section also refers to a correct image of body schema, which is achieved through motor competence and is the basis on which a child will build his or her own identity. At this stage, the body is a basic instrument for learning, as pupils develop their intelligence through what they can see, touch, smell, taste, feel, listen, handle.

With regard to the same area of play and body movement, it also points out that "by experiencing movement, children will learn to coordinate their perceptual motor schemas and get to know their own bodies, feelings and emotions" (p. 10785).

Remaining with this point, the curriculum affirms that "children will learn to perceive their body and to accept it through body movement, enabling them to establish a

better relationship with other people, gradually become aware of its possibilities. On this basis, children will build their personal identity. Through movement, they can improve and increase their possibilities of moving around, explore ever-increasing new spaces and, as such, broaden the scope of their experiences" (p. 10785). This is where we can see the importance the Pre-school Education curriculum gives to body movement and, subsequently, motor competence.

Analysis of the subjects offered by universities in Galicia to train future teachers in motor activities

We carried out an analysis of the number of subjects offered by each of the six faculties of Education Sciences in Galicia relating to pre-school motor competence. In order to do so, we collected relevant information by consulting the 'Verifica' records from each of the universities, as well as the teaching guides corresponding to each of the six faculties.

Beginning with Pontevedra's Faculty of Education Sciences and Sport, which belongs to Vigo University, we observed that, within the obligatory subjects provided, it offers two subjects focusing specifically on infant motor skills: Motor development and Physical Education and its didactics in Pre-school Education.

In the specific Physical Education specialisation, the faculty offers a list of five subjects, four of which students must take. These subjects are: Familiarity with the environment through physical education in Pre-school Education, Physical education as a means to promote interdisciplinarity, Safety and healthy habits through physical education, Body language and, lastly, Physical activity and diversity in Pre-school Education. Play in Pre-school education is offered as an optional curricular specialist subject.

Moving on to Ourense's Faculty of Education Sciences, which also belongs to Vigo University, two obligatory subjects focussing on infant motor skills form a part of the curriculum: Motor development and Physical Education and its didactics during the preschool years. These subjects are common to both this and the Pontevedra Faculties.

For its part, Ourense does not offer the Physical Education specialisation, and Play in pre-school education is the only optional subject related to motor skills, as part of the curricular specialisation, similar to Pontevedra.

The last faculty attached to the University of Vigo that we are going to talk about is the CEU Teacher Training College in Vigo. This College offers the same subjects as Ourense's Faculty of Education Sciences.

For its part, A Coruña's Faculty of Education Sciences offers three subjects, one of which is obligatory, Didactics of body language, and the other two optional: Games for developing motor skills and Psychomotor education and motor skills.

Finally, Santiago de Compostela University's Faculty of Education Sciences offers students three subjects related to motor skill development in children. The basic training does not include any specific subject, although Motor skill development in children can be found within the disciplinary didactics group.

In this faculty, the subject Children's play is offered in the general optional subjects. And the last subject that focuses on motor skill development in children, as part of the artistic languages specialisation, is Didactics of expression and body language.

For its part, Lugo's Teacher Training College, which belongs to Santiago de Compostela University, offers students just two subjects: Motor skill development in children, which falls within the disciplinary didactics groups, and Children's play, which forms a part of the general optional subjects.

After this analysis, it can be seen that the number of subjects offered by the different faculties relating to motor skills is low. In spite of its importance, the teaching load given over to motor skills in teacher training is slight, with the exception of Pontevedra's Faculty of Education Sciences, which offers a specialisation in Physical Education.

Analysis of the questionnaire

We used a mixed questionnaire with open-ended and closed-ended questions to carry out our research. On the basis of the closed-ended questions, some dichotomous and others multiple-response, we obtained numerical data which enabled us to analyse the response rate. Through the open-ended questions, we requested brief responses which enabled us to know people's opinions on the questions posed.

Analysis of the questionnaire's open-ended responses

We grouped the responses given to each open-ended question according to Thematic areas. Below is a brief summary of the response groups corresponding to each of the questions.

Table 1- Theoretical knowledge Question 12: Do you consider your theoretical knowledge in the field of motor skills to sufficiently updated? Why?

Response	Thematic areas	
Yes	University education	They had a range of qualifications or in their faculty the subjects were complete. "I have a degree in Education (Pre-school Education), a Master's in Education, Re-education and Psychomotor Therapy and a degree in Primary Education, specialising in special needs (2013)"
	Training: courses	They took training and refresher courses. "Because I take part in refresher activities".
	Personal development: reading, online searches	Personal development through online searches, reading and professional experience. "I try to be informed, to keep up-to-date by reading books, learning about new trends, courses and the job experience itself."
	Others	No changes on theory were given. "Because the theory on motor skills has not changed".
No	Lack of training opportunities	Currently, there are few or no courses on motor skills on offer, meaning that teachers' knowledge is not refreshed. "There are not many training activities in this field, at least insofar as the regional education board is concerned (or none)."
	Constant change in the theory	"The theory is always changing, new studies and teaching methods relating to motor activities are always appearing."
	No advanced training	There is no training further to that which has already been received. "Because I haven't done any advanced training for a long time."

Source: Drawn up by the authors.

Table 2- Liking for motor skills Question 14: Do you like teaching psychomotor skills? Why?

Response	Thematic areas	
	Importance in development and learning	Motor skills are important for overall development "Because they are fundamental for children's overall development, and they help them in other areas of learning as well."
Yes	Pupils	Responses that bear in mind the pupils and their work in relation with motor skills. "Children express themselves, their nature, the way they feel and relate to others"
	Teachers	Responses that bear in mind the work of the teachers themselves. "It is an area where the evolution of pupils and their involvement in tasks makes it extremely gratifying."
	Age	Over time, it gets more complicated to control activities that involve a lot of body movement. "As the years go by, the body loses its flexibility."
No	Specialist subject	They do not like teaching motor skills because it is not an area in which they are well-trained. "Because I specialise in physical education and I'm used to working with pupils of another age group."

Source: Drawn up by the authors.

Table 3- Evaluation of the importance of motor competence Question 15: Do you think it is important to teach motor skills during the second cycle of Pre-school Education? Why?

Response	Thematic areas	
Yes	Evolution, learning and integral development	The importance of motor competence in pupils' evolutionary development. "With motor skills we focus on all kinds of aspects linked to children's physical and intellectual development and their relationship with the environment."
	Pupils	They take into consideration the pupils and the importance of their motor skills teaching. "Because they enable us to work with pupils on an individual level, attending to each one's particular need, letting them express and develop these needs and interests."
	Others	Responses external to the previous sections. "Because I consider motor skills to be a priority at this stage."

Source: Drawn up by the authors.

Table 4- Importance given to motor competence Question 16: How much importance do you think is given to movement education in Pre-school Education?

Response	Thematic areas	
A lot	Overall work and integral development	Motor competence is important because it facilitates the overall work and integral development of pupils. "Because it is basic and fundamental for the integral development of pupils."
	Basic for learning and development	Motor competence is very important for learning and development. "It is the basis for learning in children of these ages."
	Movement and play	The importance of motor competence lies in the fact that movement is essential for knowledge. "A child's knowledge at this stage is closely linked to movement and play."
	Work in the classroom	Related to the time devoted to motor competence learning in the classroom. "We work not only in the time given over to P.E. but throughout the whole day."
	Slight amount of work in the classroom	They mention the light teaching load devoted to motor competence in the classroom. "The designated hours are few and it is considered a complementary development tool, not one of its basic pillars."
Little	Lack of estimation and priority	Motor competence is estimated poorly, and not prioritised, and more importance is given to other areas. "Because priority is given to more academic aspects (autonomy, reading and writing)."
	Training	Deals with the lack of teachers' motor skills preparation. "Teachers are not well-prepared. It is difficult to work with such large classes."

Source: Drawn up by the authors.

Table 5- Presence of motor competence in classrooms Question 17: Do you think that enough focus is placed on motor competence in Pre-school Education classes? Why?

Answer	Thematic areas	
	Teaching load	The time given over to motor competence in classrooms is sufficient. "Because as well as specific psychomotor skills sessions, psychomotor activities also take place in the classroom."
Yes	Part of an overall context	Importance is given to motor competence because it is considered within an overall context. "Because almost everything we work on is linked to motor activity, which is very important at this age."
	Lack of teaching load	The hours devoted to motor competence are insufficient. An example of this is: "In my opinion, more hours should be devoted per week to psychomotor skills."
No	Under-estimation	Motor competence is not valued by professionals as it should be, as an essential area in a child's development. "It is underestimated because more importance is given to reading and writing skills (when the foundation is motor competence) and it is easier to make flash cards."
	Teaching staff and educational institution	The lack of importance lies in these two aspects: "For teachers, it is easier not to excite the children and have them working most of the time at their desks."

Source: Drawn up by the authors.

Table 6- Shared programme

Question 22: Do you follow a shared programme with each group's tutor? If the answer is 'yes', how do you do this?

Answer	Thematic areas	
	Meetings	This is carried out through meetings. "At the beginning of the school year, meetings to discuss what areas will be dealt with, aims to be achieved"
Yes	Global teaching methodology	The aspects to be covered in order to implement a global teaching methodology and emphasise those which need to accomplished. "When we implement global teaching methodologies and work on projects which need to be carried out."
	Psychomotor skills teacher/ tutor	Shared programme, they are one and the same person. "In this school, the tutor and psychomotor skills teacher are the same person."

Source: Drawn up by the authors.

Statistical analysis of the questionnaire's closed-ended responses

In this section, we will focus on the closed-ended responses, looking in particular at the ones that are most relevant for the study and bearing in mind the percentages and graphs resulting from the analysis.

• Question 9: Number of specific motor competence subjects studied during the teacher training degree course.

58% point out that they have only studied one specific subject during their degree course. 18% state that they have studied up to two subjects, while only 2% of the teachers surveyed have studied three or four subjects. This data indicates that there is little motor skills training in most teacher training colleges. It is notable that 20% of teachers do not remember what subjects they studied during their degree courses.

• Question 10: Do you consider that you have the sufficient teaching skills to apply to the development of your pupils' motor competence?

Almost all of the teachers surveyed, that is, 92%, stated that they have the teaching skills to teach motor competence classes. Only 6% stated that they did not.

- Question 11: Do you take part in advanced motor skills teaching activities? 64% answered 'yes' as opposed to 36% who answered that they did not take part in any of these activities.
- Question 12: Do you consider your theoretical motor skills knowledge to be up to date?

With relation to this question, 66% of those surveyed affirmed that their motor skills knowledge was up to date, as opposed to 34% who answered 'no'.

• Question 13: What type of training content would you need to further your knowledge on the development of motor skills?

The most relevant piece of data is that 44% of teachers indicated that they would need to further their training in relation with motor skills as a tool to facilitate the integration of children with special needs. The second most relevant, 18% of teachers, corresponds to the organisation and structure of the classroom in order to teach motor skills.

• Question 14: Do you like teaching motor skills?

The majority of teachers, 92%, answered that they did, as opposed to 6%, who answered that they did not. 2% did not answer the question, which might indicate that they are not sure or simply forgot to fill in the answer.

• Question 15: Do you think it is important to teach motor skills during the second cycle of Pre-school Education?

100% of the teachers surveyed answered that they did think it was important to teach motor skills during the second cycle of Pre-school Education.

-•Question 16: How much importance do you think is given to motor skills teaching at the Pre-school stage?

Of the 50 teachers who filled out the questionnaire, 56% indicated that motor skills are considered very important in Pre-school Education. However, 44% answered that they believe it is hardly considered important at all.

• Question 17: Do you think that enough focus is placed on motor skills in Preschool Education classes?

With regard to this question, the data is much more even, with 58% of teachers answering 'no' and 42% answering 'yes'.

• Question 19: What difficulties with regard to developing motor activities do you encounter on a daily basis?

In relation with the difficulties encountered by teachers, two pieces of data stand out above the rest: 32% refer to the number of pupils and 23% to the materials. 17% mention the facilities where motor skills classes take place as a difficulty and 14% the lack of training.

• Question 20: In the School Education Plan is the role of psychomotor skills taken into consideration?

In this case, 82% of teachers answered that they were taken into consideration, while 12% answered that they were not. 6% did not answer the question.

• Question 21: Is motor skills teaching treated as an area that is separate from other curricular content?

With relation to this question, we asked teachers if motor skills teaching was treated as separate from the main curriculum. Although 70% answered that it was not, 28% affirmed that it was.

• Question 22: How much time is devoted to motor skills activities in each class? 46% of teachers answered that they gave two motor skills classes per week, with classes lasting between 40 and 50 minutes. 30% stated that they gave one session per week, also lasting 40 or 50 minutes, depending on the school.

Regarding lower percentages, 6% stated that it was a daily activity. The three remaining options registered the same percentage, with 2% of teachers stating that they gave one and a half classes a week, 2% that they gave one hour a day and another 2% that motor skills activities were present in 75% of daily activities.

- Question 23: Is your programme shared with the tutor of each group? 56% answered that they did not share a programme with the class tutor, as opposed to 40% who said they did.
- Question 24: Do you plan psychomotor activities in the same way as other curricular content?

Lastly, teachers were asked if they planned motor skills classes. 78% answered that they did, while 22% answered that they did not.

Discussion

Having analysed the different documentation and data collected in the questionnaire, we can affirm that, despite being fundamental to the human being's development, given that it leads to the integral improvement of body, spirit and mind (PALMAR, 2014), teacher training does not give motor competence the attention it requires.

This continues to occur at present as, after analysing the 'Verifica' reports of Galicia's universities, in which the skills that students must acquire and the subjects offered are contained, we observed that only Pontevedra's Faculty of Education Sciences and Sport offers a Physical Education specialisation. The other faculties only have one or two specific subjects, as occurred years ago. This implies that specific motor skills training is limited, with teachers themselves confirming such a fact through their responses to the questions posed in the questionnaire. In turn, this means that when some teachers have to give motor skills classes, they do not have the specific knowledge themselves to help them determine the aspects they need to focus on with pupils, which methodologies to use, how to divide up the pupils into groups, which spaces and materials to use, etc.

As Bocanegra (2014) points out, motor skills activities in the classroom are extremely important, as they are the pillar on which a child's intelligence is built. And teachers' competence in motor skills will be fundamental in enabling them to teach the subject properly.

It is important to underline that none of the people responsible for motor skills education in Galicia's schools specialise in that subject. As such, they use the content acquired during their teaching training degree course or through courses they have taken of their own accord. Bearing this in mind, in spite of the high percentage of teachers who stated that they had acquired the corresponding teaching skills, only 64% affirmed that they took part in training activities, which relates to the 66% who affirmed that their skills were up to date, through their teacher training, courses taken or personal online searches.

Martín and Rodríguez (2010) affirm that the importance given to the body in the school environment is without question, as experiences and occurrences are a major source of learning. Thus, almost all of the teachers surveyed (92%) like teaching motor skills in the classroom. Those who stated that they did not (6%) explained that the reason was that it was not their specialist field.

DECREE 330/2009 (ESPAÑA, 2009) establishes that the aim of the Pre-school Education curriculum is for children to achieve harmonious and comprehensive development in the different areas and to provide the learning that makes this development possible, which is why it is important for educational institutions to bear in mind the role motor competence plays in a pupil's development. It should, therefore, be included in all of a school's organisational documents, although 12% of teachers pointed out that it was not included in the School Education Plan, and 28% remarked that motor skills was treated as a separate activity. This absence in the organisational documents is at odds with what is established the abovementioned Decree, which refers to motor skills teaching as essential if pupils are to achieve effective development in motor, emotional, cognitive and social skills. Such is its importance that the education curriculum mentions it among its objectives, areas of knowledge and methodological guidelines.

A non-sedentary educational experience, based on the exploration of space through experience, enables Pre-school pupils to achieve full development (GUTIÉRREZ; CASTILLO, 2014). In spite of this, only 46% of those surveyed taught two motor skills classes per week, and 30% taught just one class. This is why 58% stated that not enough focus was placed on motor skills.

In the classroom, motor learning content should be based mainly on the stimulation of basic motor skills and all of the perceptual-motor abilities, without ignoring the link with cognitive and emotional aspects (LATORRE; LÓPEZ, 2009). Although 56% of teachers do not have a shared programme with class tutors, 78% state that they do draw up a programme, placing more importance on the development of body schema (20%), spatial structuring abilities (18%) and temporal and rhythmic organisation (18%).

Finally, we would refer to the number of pupils per class. The maximum number of Pre-school pupils stands at 25. After analysing the questionnaires, we saw that the number in fact ranges from between 16 and 30 in 76% of cases. This contrasts with the fact that teachers clearly stated that the major difficulty in organising motor skills classes was the number of pupils per class (32%).

Conclusions

Carrying out this research has enabled us to "know the importance pre-school teachers place on motor skills learning in the classroom." We have observed that all of the teachers surveyed consider it important to focus on motor competence from an early age. Even so, almost half affirmed that it is not given the importance it deserves because not enough time is given over to this subject in the classroom, revealing the need to increase the number of hours devoted to motor competence, increasing its presence in the day-to-day of school life.

We have also managed to "discover how class programming takes motor competence into account." A significant majority stated that the School Educational Plan reflected the importance of focussing on motor skills in classrooms. Furthermore, in the majority of cases, motor skills was a programmed subject and was not treated as separate from

the curriculum. In spite of this, more than half pointed out that they do not share a programme with class tutors.

Lastly, we have been able to "detect the difficulties pre-school teachers have in motor skills classes and know what level of training they have in this field." Among the difficulties mentioned, we would emphasise the excessively high number of pupils per class. Insofar as training is concerned, the vast majority affirmed that their knowledge is gained from taking part in training activities, therefore their own skills in this area are up to date. Almost half of those surveyed recognised that they came across obstacles in using motor skills as a tool for integrating special needs pupils.

References

BOCANEGRA, Odalis Medalit. La psicomotricidad en el aula del nivel inicial. **Perspectivas en Primera Infancia**, Trujillo, v. 3, n. 1, 2014.

BUCCO, Lucia; ZUBIAUR, Marta. Análisis del desarrollo motor en escolares brasileños con medidas corporales de obesidad y sobrepeso. **Revista Internacional de Medicina y Ciencias de la Actividad Física y del Deporte**, Madrid, v. 15, n. 59, p. 593-611, 2015. Disponible en: http://cdeporte.rediris.es/revista/revista59/artevolucion587.htm, Acceso en: 21 dic. 2015.

ESPAÑA. Consejería de Educación. Decreto 330/2009, de 4 de junio, por el que se establece el currículo de la educación infantil en la Comunidad Autónoma de Galicia. **Diario Oficial de Galicia**, n. 121, p. 10773-10799, 23 jun. 2009.

GUTIÉRREZ, Elizabeth; CASTILLO, Johanna Andrea. Reflexión sobre la concepción del cuerpo y del movimiento para una educación integral de la primera infancia. **Praxis Pedagógica**, Santa Fe de Bogotá, n. 15, p. 15-42, 2014.

HERNÁNDEZ, Roberto. Metodología de la investigación. México, DC: McGraw-Hill, 2014.

LASAGA, María José; CAMPOS-MESA, María del Carmen; RÍES, Francis. Tratamiento de la psicomotricidad en el segundo ciclo de la educación infantil. **Trances**, Sevilla, v. 5, n. 5, p. 379-390, 2013.

LATORRE, Pedro Ángel; LÓPEZ, Juan María. **Desarrollo de la motricidad en educación infantil**: consideraciones curriculares, científicas y didácticas. Madrid: Universitario, 2009.

LOPEZ, Rocío. Los valores de la educación infantil en la Ley de Educación Andaluza y sus implicaciones educativas. **Bordón, Revista de Pedagogía**, Madrid, v. 63, n. 4, p. 83-94, 2011. Disponible en: http://recyt.fecyt.es/index.php/BORDON/article/view/29069/15513>. Acceso en: 7 dic. 2015.

MARTÍN, Delia; RODRÍGUEZ, Sara. Psicomotricidad: ¿Qué formación dicen poseer los profesores de educación infantil y educación especial de la provincia de Huelva? **Revista Electrónica Interuniversitaria de Formación del Profesorado**, Murcia, v. 13, n. 4, p. 295-306, 2010. Disponible en: http://dialnet.unirioja.es/servlet/articulo?codigo=3675587>. Acceso en: 9 nov. 2015.

MARTÍN, Delia; RODRÍGUEZ, Sara; GÓMEZ, Raquel. ¿Qué opinan los profesores de educación infantil y especial sobre la programación psicomotriz que realizan? International Journal of Developmental and Educational Psychology, Badajoz, v. 3, n. 1, p. 151-160, 2011.

MARTÍN, Delia; SOTO, Antonio. La importancia de los contenidos psicomotores en el contexto educativo: opiniones de los maestros. **Investigación en la Escuela**, Sevilla, n. 67, p. 97-109, 2008.

MORENO, Juan Antonio et al. Situación actual de la motricidad en la etapa de 0a 6 años según el profesorado de educación infantil. **Revista Iberoamericana de Psicomotricidad y Técnicas Corporales**, Buenos Aires, v. 16, p. 17-34, 2004.

NÚÑEZ-RIVAS, Hilda Patricia et al. De las creencias de la comunidad educativa escolar sobre actividad física, a las políticas institucionales del centro educativo. **Profesorado**, Granada, v. 19, n. 2, p. 373-388, 2015. Disponible en: http://recyt.fecyt.es/index.php/profesorado/article/view/40931/23294>. Acceso en: 11 dic. 2015.

PALMAR, Husain. Educación física a temprana edad. **Encuentro Educacional**, Maracaibo, v. 5, n. 1, p. 36-52, 2014.

RAMOS, Pilar et al. Evolución de la práctica de actividad física en los adolescentes españoles. **Revista Internacional de Medicina y Ciencias de la Actividad Física y del Deporte**, Madrid, v. 16, n. 62, p. 335-353, 2016. Disponible en: http://cdeporte.rediris.es/revista/revista62/artevolucion692.htm. Acceso en: 28 jun. 2016.

VALDEMOROS, María Ángeles et al. Dificultades percibidas por el profesorado de infantil para el desarrollo de la educación motriz. **Bordón, Revista de Pedagogía**, Madrid, v. 66, n. 2, p. 155-174, 2014.

Received in: 10.07.2018 Revised in: 12.02.2019 Approved in: 19.03.2019

Yolanda Alonso Álvarez is a master in Physical Activity and Education from the University of Barcelona, Faculty of Education. Teacher in Pre-school Education, with a mention in Physical Education, by the Faculty of Education and Sports Sciences of the University of Vigo.

José María Pazos Couto is a doctor, hired professor at the University of Vigo. The line of research followed is related to the game and child motor practice, as well as the implementation of active methodologies in the initial teacher training.

ERRATUM

In the article "*A case of countertrend: low dropout rates among chemistry degree students explained by habitus and integration*" DOI: http://dx.doi.org/10.1590/s1678-4634202046207294 published in Educação e Pesquisa, v. 46, p. 01-16, e-location e207294, 2020, please change:

Page 01.

Where it is writtten Yolanda Alosno Álvarez, Please read Yolanda Alonso Álvarez