

Article

Extracurricular Activities and Academic Performance in Primary Education in Rural Area

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ABSTRACT

Background/Objective: Students' participation in extracurricular activities has been positively associated with good academic performance, social-emotional and behavioral performance. The objective of this study is to determine the level of academic performance of a group of Primary Education (PE) students, observing the relationships between the performance and their participation in extracurricular activities, considering their typology. **Method:** To this end, an ad hoc questionnaire was designed, and the 5th- and 6th- grade students enrolled in South Galicia rural schools were surveyed. **Results:** It was found that most students attended extracurricular activities. The time they spent was between one and nine hours a week, these activities being mainly of an academic and sports nature and usually in combination. Students who performed mixed extracurricular activities (sports and academic or sports and artistic, or all of them) or only sports, obtained better school results than those who carried out academic activities only. **Conclusion:** It is concluded that extracurricular activities have a positive impact on academic performance, even though there is no agreement on the type, number, and hours of the most appropriate activities.

Actividades Extraescolares y Rendimiento Académico en Educación Primaria en el Medio Rural

RESUMEN

Antecedentes/Objetivos: La participación de los alumnos en actividades extraescolares se ha asociado positivamente con un buen rendimiento académico, socioemocional y conductual. El objetivo de este estudio es determinar el nivel de rendimiento académico de un grupo de alumnos de Educación Primaria (EP), observando las relaciones entre el rendimiento y su participación en actividades extraescolares, considerando su tipología. **Método:** Para ello, se diseñó un cuestionario ad hoc y se encuestó a los alumnos de 5º y 6º curso matriculados en escuelas rurales del sur de Galicia. **Resultados:** Se comprobó que la mayoría de los alumnos asistían a actividades extraescolares. El tiempo que dedicaban oscilaba entre una y nueve horas semanales, siendo estas actividades principalmente de carácter académico y deportivo y generalmente combinadas. Los alumnos que realizaban actividades extraescolares mixtas (deportivas y académicas o deportivas y artísticas, o todas ellas) o sólo deportivas, obtenían mejores resultados escolares que los que sólo realizaban actividades académicas. **Conclusión:** Se concluye que las actividades extraescolares parecen tener un impacto positivo en el rendimiento académico, aunque no haya acuerdo sobre el tipo, el número y las horas de las actividades más adecuadas.

Palabras clave:

Actividades deportivas
extracurriculares
Actividades académicas
extracurriculares
Rendimiento conductual
Rendimiento socioemocional
Escolares

Introduction

Academic performance for many authors could be reduced to school grades since, strictly speaking, grades are the most feasible indicator to define such academic performance (Rodríguez et al., 2004). Based on this assumption, one could understand the tendency to adopt the concept of academic performance as the relationship between students' potential (input) and the product achieved (learning) (Fagundes et al., 2014).

The truth is that students' academic performance has always been a difficult variable to measure, since it is influenced by many other factors such as intelligence, intrinsic motivation, socioeconomic aspects, family, environment, self-concept, self-esteem, self-regulation, self-efficacy beliefs, hours of study, political and educational reforms, etc. That is why, it has been the subject of exhaustive studies in recent years at different educational levels (Carmona et al., 2011; Cladellas et al., 2013; Herndon & Bembenuddy, 2017; Manganeli et al., 2019) and it could be stated that academic performance is influenced both by cognitive and emotional aspects (Liem, 2019; Vahedi & Nikdel, 2011).

Many research studies have indicated that certain skills practiced implicitly through extracurricular activities could influence and improve academic performance. Among these competences, there are: social skills, self-esteem, leadership, self-discipline, persistence, self-management, or responsibility (Carmona et al., 2011; Covay & Carbonaro, 2010; Guèvremont et al., 2014; Wilson et al., 2010).

The extracurricular activities are those carried out outside the school schedule and curriculum, fulfilling the purpose of supporting, complementing, and enhancing both students' school performance and their personal development, as well as other aspects (e.g., leisure, health, values). In Spain, the organization of these activities has depended almost exclusively on Students' Parents' Associations (AMPAS) or on parents (Moriani et al., 2006).

Extracurricular activities, sometimes referred to as organized activities, are therefore characterized by their structure, adult supervision, emphasis on participants' development of skills, and the promotion of positive development. Describing these activities as organized involves therefore differentiating them from other unstructured activities, such as watching television, interacting with friends, doing homework, swimming, or playing soccer at home, or other leisure activities. The Australian Bureau of Statistics established the distinction between formal and informal activities to describe children's leisure activities (Mahoney et al., 2005; Metsäpelto & Pulkkinen, 2012; Simoncini & Caltabionio, 2012). In addition, Al-Ansari et al. (2016), Thompson et al. (2013), and Veronesi & Gunderman (2012) defined extracurricular activities as those that students conduct aside from those required to obtain a degree. These may include hobbies, sports, cultural or religious activities, etc. In addition, these activities may provide some type of benefit and have a structure or organization. It should therefore be expected that the extracurricular activities enrich students' personal experiences, develop their skills, help them cope with stress, and provide them with advantages to increase their employment possibilities.

Some authors stated that one of the reasons why the interest in research on extracurricular activities in Spain was growing, was that in recent years, Spanish children's participation in these activities has increased (Cladellas et al., 2015). Moreover, it was suggested in the literature that this participation in extracurricular activities

was positively associated with good academic, social-emotional, and behavioral performance (Ferris et al., 2013).

In addition, it is known that the association between attendance at extracurricular activities and academic performance varies when considering factors such as the socioeconomic level and family structure, the parents' educational level, the parental style, the relationships with peers, gender, race, the environment in which one lives, the type of extracurricular activity, the number of hours dedicated to such activities, etc. (López et al., 2016).

The study conducted by Valencia-Peris et al. (2016) analyzed the differences in the daily time devoted to various sedentary activities and their relationship with academic performance based on sociodemographic variables such as adolescents' gender, grade, and socioeconomic level. This study concluded that the number of hours devoted to the performance of sedentary activities after school hours should require some type of limitation, as they could jeopardize adolescents' academic success. For this reason, in the current research, we analyze the relationship between the number of hours devoted to extracurricular activities and academic performance.

In line with the above, the research carried out by Cladellas et al. (2013) has been especially relevant. These authors wanted to assess the possible incidence of extracurricular activities on Primary Education (PE) students' academic performance, considering the typology of these activities (recreational, cognitive or both), as well as the number of hours devoted to the activities carried out. Their results have shown how the performance of any type of extracurricular activity improved the academic performance of the boys and girls in the sample, except for subjects such as Mathematics, Physical and Artistic Education. They have also concluded that a high number of hours of extracurricular activities negatively affected the results obtained in all subjects, except for Physical Education.

The study conducted by Covay & Carbonaro (2010) has found that attending sports and dancing were associated with an improvement in non-cognitive skills of students in their first year of PE. However, the relationship between activities and performance also varied according to family socioeconomic level. The study results have indicated that students of low socioeconomic status obtained higher scores in Mathematics compared to non-participants in extracurricular activities of the same socioeconomic level. Moreover, students of high socioeconomic level obtained lower scores in Reading compared to non-participants in sport activities of that socioeconomic level.

As for those with high socioeconomic level attending sport activities, it was noted that they obtained lower scores in Reading.

On the other hand, the research carried out by Simpkins et al. (2005), which used data from two programs (*Childhood and Beyond Study and New Hope*), has analyzed whether the participation in extracurricular activities and academic performance were associated with different activities depending on the children's family and their personal characteristics. The study results have indicated that attending different sports was associated with a high-performance level and low levels of behavioral problems or criminal behavior. In both samples, sports participation was therefore a consistent predictor of academic success and of a low level of behavioral problems.

Moreover, a Finnish study, conducted by Metsäpelto & Pulkkinen (2012), has examined the participation of students aged from 9 to 11 years, of both genders, in extracurricular activities,

their socio-emotional behavior and their academic performance. This study has concluded that participation in arts and music was associated with greater adaptability, higher academic achievement, and better work skills.

The bibliometric review carried out by López et al. (2016), focused on the link between extracurricular activities and academic performance, has found mostly favorable results. It has also been pointed out that, despite controversies, extracurricular physical activity improved academic performance, whereas academic activities did not show substantial benefits.

Given all the above, we conduct a study like that of Cladellas et al. (2013) aimed at verifying whether the results could be extrapolated to the rural areas. The study also attempts to assess the role of the confounding variables when analyzing the results, as well as to contribute towards consolidating the set of information that sustains this discipline.

The objective of this study is therefore to determine the level of academic performance of a group of PE students in rural areas, to establish whether there is any relationship between this performance and the extracurricular activities that they attend (attendance or non-attendance, number of extracurricular activities, number of hours per week, and type of extracurricular activities).

Method

Participants

The study was conducted on a sample of students enrolled in the last two grades of PE in two rural areas of southern Galicia, Spain. The population was located, therefore, in eight municipalities of the peripheral rural areas close to one of the largest cities in Galicia: Vigo. The sample consisted in total of 1627 boys and girls enrolled in 5th and 6th grades of PE in these municipalities, distributed in 36 schools.

In general, the main differences between rural and urban areas include the difficulty in communications, the distance from the family home to the educational center where the extracurricular activities are carried out, the smaller number of sports facilities, the smaller academic offer, and families' lower purchasing power.

The percentage of students in each grade was very balanced since they were equally distributed between fifth and sixth graders (from a total of 321 participants, 160 were enrolled in 5th grade, and 161 in 6th grade of PE). 44.5% are boys and 55.5% girls, with an average age of 10.5 years.

Regarding the gender of the parents, it is mostly the mothers who answered the questionnaire: 268 women (83.5%) compared to 53 men (16.5%). The marital status of the parents participating in this study predominately married: 76.9%. In addition, the number of children per family varied between 1 and 5, with an average of approximately 2.

The employment status of fathers and mothers was quite different. Thus, the percentage of employed fathers was much higher than that of mothers: 81.6% versus 59.5%. In addition, unemployment affected 17.1% of the fathers and 40.5% of the mothers.

Measurement Instruments

All variables measured in relation to attendance at extracurricular activities were collected by designing an 'ad hoc' questionnaire, administered on a voluntary and anonymous basis. This questionnaire

collected basic information on sociodemographic and family aspects and information on extracurricular activities of various kinds, consisting of two parts: the first was covered by the students (personal data and aspects related to extracurricular activities), and the second by the parents (personal and employment data, academic performance and aspects related to extracurricular activities), applying a code to each document. The variables studied were as follows:

- Participation or lack of participation in an extracurricular activity.
- Type of extracurricular activity. We classified the students who carried out activities in seven groups: those who carried out academic activities (e.g., English, educational reinforcement), artistic-expressive activities (e.g., drawing, painting, acting), sports activities (e.g., soccer, basketball, skating) and all types of possible combinations arising from attending two types of activities, as well as performing all of them.
- Number of extracurricular activities.
- Number of hours of extracurricular activities. This variable was grouped into four intervals: from 1 to 3 hours per week, from 3 to 6, from 6 to 9, and finally, more than 9 hours per week.
- Academic Performance. The academic performance was measured using the total performance understood as the grade average obtained in different subjects: Mathematics, Spanish Language and Literature, Galician Language and Literature, Arts, Foreign Language, Sciences and Physical Education.

Procedure

A descriptive and inferential cross-sectional study was carried out, using a non-probabilistic sample of voluntary subjects.

First, the researchers met with the management staff of the schools (randomly selected), with the intention of explaining the objective of the work. They were informed at this meeting that a questionnaire with various questions would simultaneously be administered to the children's parents.

The parents of the children participating in the study were notified in writing by the school management and they were asked to give their permission to apply the questionnaire by signing an informed consent.

The study was conducted according to the ethical standards established by the Declaration of Helsinki and in agreement with the recommendations of Good Clinical Practice and the Spanish legislation in force governing research.

Data Analysis

The data analysis was conducted using the SPSS (V.20.0.) statistical package. First, a descriptive analysis of the data was carried out, taking account of means and standard deviations, as well as asymmetry and kurtosis. Second, the Kolmogorov Smirnov test was used with the aim of deciding, in a rigorous way, whether the sample available came from a normal distribution or not, defining all the continuous variables with a normal probability distribution. Third, mean comparisons were performed with analyses of variance and post hoc comparisons with Bonferroni correction. Fourth, the relationship between the number of extracurricular activities and the academic performance was analyzed using Pearson's correlation coefficients.

Results

The students' average performance was relatively high since the average grade of all the subjects exceeded 7 (see Table 1). Thus, the average grade was around 7.5 in all subjects, only standing out in the case of Physical Education, with 8.12. In addition, 4 was the minimum value (5 in the case of Physical Education) and 10 was the maximum value. The asymmetry was negative in all cases except for the subject of Galician Language, in which case it was positive (.057). This means that the distribution tail was extended toward values lower than the average in all subjects, except for Galician Language, where it was extended toward values higher than the average. Kurtosis was negative in all subjects, which means that the concentration of the values in the central region of the distribution was low.

Thus, most students (92.8%) attended extracurricular activities. That is, only 7.2% of the students did not perform any type of extracurricular activity. The number of extracurricular activities that each child participated in varied between a minimum of zero and a maximum of seven, with an average of 2.16. The asymmetry was positive (.413) and the same was kurtosis (.381). The distribution had an asymmetric tail toward positive values, that is, values clustered more at levels below the arithmetic mean. In addition, positive kurtosis indicated a distribution that resulted in a 'more pointed' graph compared to the normal curve. Consequently, data were more clustered around the average.

On the other hand, students who participated in extracurricular activities usually spend between three and six hours per week (44.0%). There are also those who spend between one and three hours per week (29.9%), between six and nine hours per week (22.1%), and only 4% of the children spend more than 9 hours a week performing these activities.

Regarding the type of extracurricular activities that each student participated in (see Table 2), the highest percentage (26.8%) performed academic and sports activities, whereas the lowest percentage (6.4%) carried out academic activities only. In addition, 19.5% performed sports activities only, compared to 8.4% who attended academic and artistic activities. At an intermediate level, it was found that 14.4% participated in artistic and sports activities, 14.1% performed all three types of activities, and 10.4% performed artistic activities only. In addition, 39.3% of the children attended federated sports activities.

It was noted that there were hardly any differences in terms of academic performance between the groups depending on whether they attended extracurricular activities or not. In fact, the results showed that there were significant differences only between the average grades in the case of performance in Foreign Language. More specifically, the average grade in this subject was higher for those attending extracurricular activities ($M = 7.86$) than for those who did not ($M = 7.04$), with the mean effect size being $d = .47$.

The relationship between the number of extracurricular activities based on academic performance was also determined. The results

Table 1
Descriptive Statistics of Academic Performance

Subject	Min.	Max.	M	SD	Asymmetry (SE = 0.136)	Kurtosis (SE = 0.271)
Mathematics	4	10	7.46	1.76	-0.174	-0.932
Spanish Language and Literature	4	10	7.44	1.59	-0.070	-0.688
Galician Language and Literature	4	10	7.24	1.63	0.057	-0.842
Arts	5	10	7.97	1.44	-0.134	-0.865
Foreign Language	4	10	7.80	1.83	-0.272	-1.108
Sciences	4	10	7.58	1.67	-0.077	-0.898
Physical Education	5	10	8.12	1.46	-0.250	-0.851

Table 2
Frequency and Percentage of Extracurricular Activities

Activities	Frequency	Percentage
Academic	19	6.4
Artistic	31	10.4
Sports	58	19.5
Academic and artistic	25	8.4
Academic and sports	80	26.8
Artistic and sports	43	14.4
All of them	42	14.1
Total	298	100.0
Yes	117	39.3
No	181	60.7
Total	298	100.0

Table 3
Correlations According to the Number of Extracurricular Activities and Academic Performance

	TP	MA	SL	GL	AE	FL	SC	PE
Pearson's correlation	.196	.110	.155	.151	.163	.250	.224	.003
<i>p</i> (bilateral)	.0001	.051	.005	.007	.003	.0001	.0001	.950
Coefficient of determination	.038	.012	.024	.022	.026	.062	.050	.000
<i>N</i>	321	321	321	321	321	321	321	321

Note. The mean difference is significant at the level of 0.05. TP: Total performance MA: Mathematics SL: Spanish Language GL: Galician Language AE: Artistic Education FL: Foreign Language SC: Sciences PE: Physical Education.

obtained showed a significant and positive correlation between the number of extracurricular activities performed and the academic performance in all cases, except for Physical Education and Mathematics (see Table 3).

However, the Pearson's correlation coefficient indicated that it was a weak relation, close to 0 in all cases and that, the greater the number of activities performed, the better the academic performance. In addition, the coefficient of determination was also low, thus the number of extracurricular activities said little about the academic performance.

Regarding to the number of hours devoted to extracurricular activities factor on academic performance, the results (see Table 4) exhibited significant differences in mathematics, Galician language and literature, artistic education, foreign language, and sciences. No differences were observed in Spanish Language and Physical Education.

Post hoc comparisons (Bonferroni: $.05/3 = .0166$) showed significantly higher means in academic performance (total performance, mathematics, artistic education, and sciences), when they attended between 6 and 9 hours or more than nine hours a week in these activities, in comparison with those attended 1-3 or 3-6 hours. No differences between groups were observed in Galician Language.

Regarding the differences between the types of extracurricular activities (academic, artistic-expressive, and sports) according to students' academic performance, the results allowed ruling out the hypothesis of equality of means. In general, students who performed mixed extracurricular activities (sports and academic or sports and artistic, above all) obtained better school results than those who carried out academic activities only. Those who only carried out sports activities had better academic results than those who only attended academic activities and, in addition, those who attended all types of activities obtained greater benefits than those who only attended academic activities (see Table 5).

As for the type of extracurricular activity factor, the results revealed (see Table 5) a significant effect in total academic performance, en mathematics, Spanish language and literature, Galician language and literature, arts, foreign language, sciences, and physical education. The post hoc contrasts (see post hoc *p* test in Table 5) revealed (Bonferroni test: $.05/7 = .007$) that students who carried out mixed extracurricular activities (i.e., academic and sports, or artistic and sports, or all of them) achieved a higher academic performance than those who carried out solely academic activities. Along the same lines, those who only participated in sports activities obtained better academic results than those who only attended academic activities (see Table 5).

Table 4
ANOVA for the Effects of the Time Spent in Extracurricular Activities (1-3 Hours, 3-6 Hours, 6-9 Hours, More Than 9 Hours) on Academic Performance

Factor	Range	<i>M</i>	<i>F</i>	<i>p</i>
Total performance	1-3	7.33	4.50	.004
	3-6	7.73		
	6-9	8.02		
	More than 9	8.14		
Mathematics	1-3	7.10	2.96	.033
	3-6	7.53		
	6-9	7.94		
	More than 9	7.58		
Galician Language and Literature	1-3	7.00	3.05	.029
	3-6	7.21		
	6-9	7.65		
	More than 9	8.08		
Artistic Education	1-3	7.64	3.26	.022
	3-6	8.02		
	6-9	8.27		
	More than 9	8.58		
Foreign Language	1-3	7.40	3.19	.024
	3-6	7.92		
	6-9	8.24		
	More than 9	8.33		
Sciences	1-3	7.07	5.97	.001
	3-6	7.69		
	6-9	8.14		
	More than 9	8.08		
Spanish Language	1-3	7,18	2,54	,057
	3-6	7,47		
	6-9	7,80		
	More than 9	8,08		
Physical Education	1-3	7,93	1,07	,36
	3-6	8,29		
	6-9	8,14		
	More than 9	8,25		

Table 5
ANOVA for the Effects of the Type of Extracurricular Activities on Academic Performance

Factor	Activity	M	F	p	p (post hoc comparisons)		
Total performance	Academic	6.45	5.49	.0001	Academic	Sports	.009
	Artistic	7.47					
	Sports	7.62					
	Academic and artistic	7.56					
	Academic and sports	7.70					
	Artistic and sports	8.01					
	All of them	8.27					
Mathematics	Academic	5.89	4.62	.0001	Academic	Sports	.001
	Artistic	7.13					
	Sports	7.72					
	Academic and artistic	7.20					
	Academic and sports	7.43					
	Artistic and sports	7.86					
	All of them	8.12					
Spanish Language and Literature	Academic	6.74	3.51	.002	Academic	All of them	.001
	Artistic	7.45					
	Sports	7.21					
	Academic and artistic	7.08					
	Academic and sports	7.35					
	Artistic and sports	8.00					
	All of them	8.17					
Galician Language and Literature	Academic	6.32	2.90	.009	Academic	Artistic and sports	.005
	Artistic	7.10					
	Sports	7.14					
	Academic and artistic	7.04					
	Academic and sports	7.21					
	Artistic and sports	7.70					
	All of them	7.90					
Arts	Academic	6.74	5.39	.0001	Academic	Academic and artistic	.001
	Artistic	7.97					
	Sports	7.64					
	Academic and artistic	8.72					
	Academic and sports	7.90					
	Artistic and sports	8.35					
	All of them	8.40					
Foreign Language	Academic	6.11	5.33	.0001	Academic	Sports	.005
	Artistic	7.65					
	Sports	7.83					
	Academic and artistic	7.56					
	Academic and sports	7.80					
	Artistic and sports	8.30					
	All of them	8.67					
Sciences	Academic	6.16	6.59	.0001	Academic	Sports	.043
	Artistic	7.00					
	Sports	7.47					
	Academic and artistic	7.32					
	Academic and sports	7.73					
	Artistic and sports	7.95					
	All of them	8.57					
Physical Education	Academic	7.21	2.71	.014	Academic	Academic and sports	.002
	Artistic	8.03					
	Sports	8.31					
	Academic and artistic	8.00					
	Academic and sports	8.53					
	Artistic and sports	7.88					
	All of them	8.07					

Discussion

The purpose of this study was to determine the level of academic performance of a group of rural PE students to establish whether there was a relationship between their performance and the extracurricular activities they attended.

The decision to conduct the study in rural areas was determined because, a priori, the scientific literature showed discrepancies in terms of rural students' academic performance. Another reason was because access to extracurricular activities seemed more challenging for this group, due to the lower purchasing power of the families, less educational opportunities or the distance between the family home and the educational center where they are performed. In this sense, the studies conducted by Beck & Shoffstall (2005) and Roscigno & Crowley (2001) stated that rural schools and their families were affected by a reduction of the socioeconomic opportunities, and this had a direct impact on children's academic results (the socioeconomic factor accounted for 70% of the variance in school results).

However, an overwhelming majority of rural students said they participated in extracurricular activities, the maximum being extremely high, since there were children who attended up to seven different activities. However, the average remained around two activities per child, there being no study with which to compare the average of activities per child in Spain. Students spent between one and nine hours a week, these activities being mainly of an academic and sports nature and usually in combination. In addition, almost 40% participated in federated sports activities, which are more organized and structured than non-federated, and have greater institutional support, which demonstrated that this type of activities was common in the Galician rural areas.

Rural students' attendance to extracurricular activities could be less predicted, due to the difficulty in communications, the distance from the family home to the educational center where these activities are carried out, the smaller number of sports facilities, the smaller academic offer, or families' lower purchasing power, taking into account mothers' unemployment rate (Ivaniushina & Aleksandrov, 2015; Pano & Markola, 2012; Viñas et al., 2006; Xu et al., 2009). However, we found that the participation was similar and even slightly higher than that observed in the study conducted by Cladellas et al. (2013) in an urban area. These authors observed that participation in these activities was 86.68%, a percentage very similar to ours (92.8%), but higher than that determined by another study carried out in Barcelona by Fundació Jaume Bofill (2006), of 77.80%.

There were hardly any differences in terms of academic performance between the groups depending on whether they attended extracurricular activities or not, except in the case of Foreign Language. In fact, although a significant and positive correlation was found between the number of extracurricular activities carried out and the academic performance, it was very low. Similarly, Steinmann et al. (2019) find no effects of participation in extracurricular activities on student achievement (mathematics and reading). However, the study conducted by Cladellas et al. (2013) reached conclusions opposite to ours. Given that the study was conducted in the same educational stage, it was expected that the variables related to the environment influenced the results. These authors noted that the performance of any type of extracurricular

activity had a positive and significant impact on the results obtained in all subjects, except for Mathematics, Physical Education, and Artistic Education.

Regarding the number of extracurricular activities carried out, the study of Moriana et al. (2006) referred to the adverse effects of enrolling children in too many extracurricular activities, such as fatigue, loss of concentration, saturation, stress, etc. This fact contrasted with our findings, since the results obtained showed that the more activities students attended, the higher their academic performance. This result led us to speculate that the relationship between these variables is not linear and further research is needed to extend the study with other variables that would allow us to define an explanatory model.

It was surprising that the number of extracurricular activities performed correlated significantly with the academic results obtained in all subjects, except for Physical Education and Mathematics. In fact, the study conducted by Cladellas et al. (2013) noted that participation in extracurricular activities would bring positive effects such as an increase in energy and concentration levels, which are basic and fundamental aspects in any of these two subjects.

On the other hand, we observed that there was a correlation between the number of hours devoted to extracurricular activities and academic performance, except for Spanish Language and Physical Education. This significant relationship showed that those who attended extracurricular activities more hours a week (mainly between 6 and 9 hours) had better academic performance.

This finding was in line with that reported by Cladellas et al. (2013), since they concluded that not doing any type of extracurricular activity or spending more than 10 hours a week performing this type of activity could be counterproductive in terms of academic performance. These authors stated that, regardless of the type of activity, it would be optimal to perform between two and a half hours and ten and a half hours a week of extracurricular activities.

The research conducted by Valencia-Peris et al. (2016) concluded that the number of hours devoted to sedentary activities during after-school hours could affect academic success. However, this study was conducted on adolescents and, in any case, academic extracurricular activities (which are more sedentary) do not seem to be the most beneficial for PE students, as we will discuss below.

Regarding the differences between the types of extracurricular activities (academic, artistic-expressive and sports) according to students' motivation, there were differences in all subjects. These significant differences determined, broadly speaking, that students who performed mixed extracurricular activities (sports and academic or sports and artistic, above all) obtained better school results than those who only carried out academic activities. In addition, those who only performed sports activities outnumbered those who only participated in academic activities.

Cladellas et al. (2013) reached similar conclusions, emphasizing that the type of extracurricular activity performed has effects some subjects in particular and the average grade in general. The authors stressed that carrying out only recreational activities was associated with obtaining better grades in Mathematics and in the final average grade, compared to the performance of exclusively academic activities. It was explained that this could be since it was precisely the students with the worst results in Mathematics who performed the most cognitive activities.

However, the study conducted by Carmona et al. (2011) showed that the subjects who carried out academic extracurricular activities, such as languages and IT, obtained better academic results in all subjects. However, those who participated in music and sports activities also obtained better academic results in some subjects such as Mathematics or Science.

Similarly, in the study conducted by Moriana et al. (2006) on CSE students, it was concluded that attendance at private classes, academic reinforcement activities or mixed activities (sports and academic) positively influenced this performance. It was also noted that the students involved in mixed activities obtained better academic results compared to those who only participated in sports activities. The data also showed that participants in academic activities obtained better results than those in mixed activities.

The difference between our results and those obtained by Moriana et al. (2006) may be due to the students' age. One should keep in mind that our study was developed in PE, just like the one conducted by Cladellas et al. (2013), and Carmona et al. (2011), while the other authors focused on CSE.

The educational consequences derived from our results debunk the idea that attending academic extracurricular activities would improve students' performance. It would be beneficial to establish counseling guidelines in schools, so that educators could correctly guide families regarding the type of extracurricular activity to be carried out, the number of weekly hours, and the number of activities. According to Cladellas et al. (2013), it would be important that educators and parents jointly design the activities, resulting in complementary extracurricular training adapted to each student's characteristics, especially considering that at early ages, parents are those who usually decide which and how many activities should be performed by their children.

Moreover, and given that learning should be a positive and pleasant experience and that our findings showed that sports and artistic activities are the most beneficial for academic performance, we consider it of vital importance to change the approach adopted towards academic extracurricular activities. In other words, it is crucial to reformulate the activities of academic reinforcement, to provide them with a more recreational, creative, active and meaningful experience, while students' motivation and reflection are enhanced, which are basic aspects of a successful learning process.

Consequently, it has become clear that the relationship between participation in extracurricular activities and academic performance exists and is very positive, varying the benefits depending on the activity carried out. In this sense, there is no agreement on which are the most beneficial types of extracurricular activities, since Carmona et al. (2011) indicated that academic extracurricular activities, as well as music and sports to a lesser extent, were the most beneficial; Cladellas et al. (2013) pointed to recreational activities, whereas Moriana et al. (2006) to academic and mixed activities (sports and academic); and, as far as we are concerned, the mixed extracurricular activities (sports and academic or artistic and sports) and sports had the most impact on academic performance.

Regarding the number of hours, it was agreed that spending of a great number of weekly hours performing extracurricular activities could be detrimental to children's academic performance, given the high level of stress, fatigue and loss of concentration that could be generated. However, no agreement has been reached on the ideal number of hours. Cladellas et al. (2013) pointed out

that not participating in extracurricular activities or devoting more than ten hours a week to such activities negatively affected academic performance. On the other hand, in the present study, it was concluded that spending between 6 and 9 hours per week was the most beneficial for students.

On the other hand, the differences between the rural and urban areas have become clear, since in the study by Cladellas et al. (2013) the mere participation in extracurricular activities implied higher levels of academic performance, while in our study in the rural area, the differences between those who attended such activities and those who did not were only observed in the subject of Foreign Language. In addition, the most beneficial type of activity varied between the PE and CSE students. For the former, according to our findings, the most beneficial were the mixed extracurricular activities (sports and academic or artistic and sports) or sports, while for the latter (CSE students) the most beneficial were academic activities, followed by mixed activities (sports and academic) (Moriana et al. 2006).

In short, in the light of the results obtained, we can point out that there are still no conclusive results on this subject. What seems to be clear is that extracurricular activities have a positive impact on academic performance, even though there is no agreement on the type, number, and hours of more appropriate activities.

It would be important that further research focuses on defining other sociodemographic variables that could interfere with students' academic performance, as well as on finding the specific types of extracurricular activities that are more beneficial, taking into account each student's characteristics. In addition, given the difficulty of collecting data with children so young, our study was limited both when collecting such data and when compared with other studies.

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