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EXTRACURRICULAR ACTIVITIES AND ACADEMIC PERFORMANCE: DIFFERENCES BY GENDER AND PUBLIC AND CHARTER SCHOOL

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Abstract. How does students' participation in extracurricular activities affect their academic performance? This question has become a topic of debate in the educational community, even extending into the social sphere. This study used a quantitative, non-experimental, descriptive, cross-sectional methodology to analyze any existing relationships between participation in extracurricular activities and academic performance, also taking into account gender and type of school (public vs. charter), to determine whether there were significant differences according to these variables. A total of 620 primary school students from ages 10 to 12 participated in the study ($M = 10.35$; $SD = 0.63$). The results showed significant, positive relationships between the number of extracurricular activities and academic performance in Language Arts; and significant, negative relationships between time devoted to recreational activities and performance in English as a Foreign Language. Overall, the girls participated in more extracurricular activities than the boys. The boys participated in a greater number of sports activities, and participation in sports was also greater among students of the charter schools. It is possible that sociocultural context and family economic level are decisive in whether students participate in these activities, and consequently in the conclusions that may be drawn about their relationship to variables like academic performance.

Keywords: Academic performance, extracurricular activities, primary education.

ACTIVIDADES EXTRAESCOLARES Y RENDIMIENTO ACADÉMICO: DIFERENCIAS SEGÚN EL GÉNERO Y TIPO DE CENTRO

Resumen. La repercusión de la realización de actividades extraescolares en el rendimiento académico de los estudiantes se ha convertido en un tema de debate entre la comunidad educativa que trasciende incluso al ámbito social. Este estudio de metodología cuantitativa, no experimental, descriptivo y de corte transversal tiene como

objetivo general analizar las relaciones existentes entre la realización de actividades extraescolares y el rendimiento académico, considerando además el género y el tipo de centro para conocer si existen diferencias significativas atendiendo a dichas variables. Participaron 620 estudiantes de tercer ciclo de Educación Primaria con edades comprendidas entre los 10 y 12 años ($M = 10.35$; $DT = 0.63$). Los resultados revelan relaciones significativas y positivas entre el número de actividades extraescolares y el rendimiento académico en Lengua Castellana y negativas entre el tiempo dedicado a actividades recreativas y el rendimiento en Lengua Inglesa. Además, las niñas realizan más actividades extraescolares que los niños, son ellos los que mayor número de actividades deportivas realizan, siendo también estas actividades las que realizan con más frecuencia los estudiantes de los centros concertados. Es posible que el contexto sociocultural, así como el nivel económico familiar, sean determinantes para la realización de este tipo de actividades y en consecuencia para sacar conclusiones de su relación con variables como el rendimiento académico.

Palabras clave: Rendimiento académico, actividades extraescolares, educación primaria.

Introduction

Extracurricular activities, also known as extra-academic activities, are those activities performed by students that fall outside the realm of the normal curriculum of the school. Although they might not be held by the school, schools can offer them (Moriani et al., 2006). Extracurricular activities are one of those factors included in the academic setting that positively affect a student's performance. Few studies focus on analyzing and comparing the type of extracurricular activities and the number of hours dedicated to them with the impact it has on academic performance. This suggests more studies in this field. There is still no conclusive evidence between extracurricular activities and better academic performance. However, significant differences depending on gender and grade have been reported, as well as differences in performance between students who carry extracurricular activities and those who do not. Due to that, depending on the activity type and time spent on it, students perform differently (Pros, Muntada, Marqués, and Busquets, 2015).

The current debate on the advantages or benefits thanks to extracurricular activities, the time spent on them, and the number or type of activities that affect not only education in our society. At a time when teachers are concerned about any type of health of the learners, it is key to analyze the impact these activities have on their lives. Taking part in these activities begins from Early Childhood Education, where the young students attend extracurricular activities for the first time. It takes place while their parents are at work, so the demand and number of these types of activities have been raising even among schools, placing them between babysitting and educational moment (Varela, 2006).

Among the different factors that can affect the learning process and performance, the role of some curricular and extracurricular activities is key. It is so important that it goes beyond the empowerment, addition, or performance support, being such crucial for the development of personal and emotional well-being.

We have mentioned two different types of activities: extracurricular activities, that are carried out outside the realm of the normal curriculum of the school, and extracurricular activities that take place within the school environment, which complement what has been learned during the school day. Despite this denominations, the two of the terms have been used as synonyms even though their difference is clear. In the first, the activities are planned by the parents and in the second by the school. The case of extra academic activities precisely chosen

and planned by the schools may be more appropriate and beneficial than other cases, since those are not planned according to the needs of students and often lack of a logical and coherent sense (Moriana et al., 2006).

Studies on extra academic activities and academic performance are still not conclusive, as they are not well grounded and still not valid due to the use of unsubstantiated methodological methods (Fashola, 2001; Olsen, 2000). A study based on extracurricular activities and academic performance at a behavioral level on teenagers has been held. However, this has not been the case for elementary school students. These types of studies still few in their area (Hidalgo 2005; Moriana et al., 2006).

Some studies report that students who participate in extracurricular activities are far more committed and have better academic results than those without this type of activities (Duncan, 2000; Gillman, 2001). There is a direct effect between participating on these activities and a low drop-out rate, with higher levels of student motivation (Holloway, 2002). When students perform extracurricular activities, the difference in their academic or sports skills compared to those who do not is significant and results in better scores (Varela, 2006). Also, students who participate in more than one sport or academic activity perform better than those who only participate in one activity, be it academic or sports.

When comparing the performance between students who do participate in both sports and extracurricular activities, and those who only take part in one, students with only extra academic activities perform better. There are general differences in academic performance depending on the type of activities, be it academic, sports, free time, or recreational. These significant differences are observed in the group of students who participate in academic activities, is not so significant in students with physical activity (Martínez and Bernal, 2015; Moriana et al., 2006; Rodríguez, Delgado and Bakiera, 2011). There are differences as well in academic performance for students who take part in extracurricular or extracurricular music activities within the school (Jábega, 2008) or at music conservatories, resulting in better performance in Mathematics (Vílchez, 2009).

Most of the studies from this century carried out on this topic, in and outside Spain, focuses on physical activity to analyze its direct or indirect effect on academic performance (Booth et al., 2013; Bradley, Keane and Crawford, 2013; Esteban-Cornejo et al., 2014; González and Portolés, 2014; Martínez and Bernal, 2015; Paz-Navarro, Roldán and González, 2009; Ramírez, Vinaccia and Suarez, 2004). Some of them report better academic performance and higher levels of motivation in students who took part in physical activities, resulting in a positive connection between sports and academic performance.

Students taking part on physical activities tend to have better concentration skills, a healthier brain and a better learning process (Tremblay, Inman and Willms, 2000) resulting on better results in Mathematics, Spanish, English, and Sports, being especially significant on English and Sports (Castelli, Hillman, Buck and Erwin, 2007; González and Portolés, 2014; Alfonso-Rosa, 2016). However, excessive exercising (more than five hours a week) can result in worse marks than when practicing moderate physical activity, between 2 and 5 hours a week, which is related to better academic performance (Clariana et al., 2015; Pros et al., 2015).

A connection has been reported between extracurricular activities, personal and social maturity, critical thinking (Bauer and Liang, 2003), interpersonal skills associated with higher educational grades, higher expectations and ambitions, more commitment, and better attention skills (Mahoney, Cairns, and Farmer, 2003).

Regarding gender, the results report greater participation from males compared to females (Hermoso, García, and Chinchilla, 2010; Pros et al., 2015). Concerning the time spent, some studies report a lower performance when zero or more than 10 hours are spent While spending the average time, that is between 5 and 6 hours, combining sports, recreational and academic activities, result on better academic performance (Pros et al., 2015).

The results are not conclusive, some studies report negative effects results, indicating that sometimes extracurricular activities have negative consequences on children, such as lack of concentration, lack of good sleep, tiredness and stress (Cladellas, Chamarro, Badia, Orbest and Carbonell 2011). Consequences that arise from the family status and the parents look for extracurricular activities for their children to be taken care of so they can fulfill their workday. In some cases, the families themselves are the ones to think of the benefit these extracurricular activities can bring if they take part in it. Therefore, some studies report nor significant neither positive connections between the studying techniques, academic performance and participation in activities outside the school context (Moriana et al., 2006), while others report many benefits of this type of activities, based on extra academic and extracurricular contexts (Noam, Biancarosa and Dechausay, 2003). Students taking part in some type of extracurricular activity improve their academic performance (Duncan, 2000; Pros et al., 2015) thereby obtaining academic and social benefits, plus their attention skill increases. For example, in the area of Mathematics, where thinking demands an effort. Extracurricular physical-sports activities affect positively the marks in Mathematics, Spanish, and languages (Cladellas, Clariana, Gotzens, Badia and Dezcallar, 2015).

Based on the above, the following study is aimed to analyze the connections between extracurricular activities and academic performance, taking into account the type of activities, the time spent, with gender and type of school (public or private) as independent variables.

Method

Design

This study is based on quantitative and non-experimental methods, with a differential cross-sectional, descriptive, correlational, and inferential basis.

Participants

Incidental non-probability sampling. The study includes 620 Key Stage 2 students (5th and 6th grade) of Elementary Education belonging to nine schools (3 state and 6 private schools) of the intermediate social and economic level of the educational system of Cantabria, (Spain) Among them: 37.74% (n = 234) from state schools, and 62.26% (n = 386) from private schools, with a total of 329 males (53.06%) and 291 females (46.94%) aged between 10 and 12 years (M = 10.35; DT = 0.63). There are no significant differences in gender depending on the type of school ($\chi^2 = 1.529$; $p > .05$)

Once the permissions requested and the informed consent of the families, the questionnaire was applied to the students during school hours by the research team. The purpose of the study was explained to the students, guaranteeing the anonymity and confidentiality of the data collected.

Instruments and variables

A sheet ad hoc was used to collect information on socio-demographics (age, grade, sex, and school) as well as to collect information on extracurricular activities carried out by students. A question is asked and students have to mark the activities or classes they attend Monday through Friday after school hours. To answer each question, they are given nine options that they must mark with a cross. Next to the cross, they have to write down the number of days per week they practice that activity and the number of weekly hours they spend on it. The options are followed in this order: private tutoring or educational support, foreign language classes, music, drawing or painting, computing (ICT), sports, theatre, dance, others. With the data collected, two other variables are defined:

- Total number of activities that students do per week after school hours
- Total hours per week destined for activities after school hours.
- Other three variables consist of grouping extracurricular activities into three types depending on the purpose and defined by the number of hours spent on them, such as:
- Cognitive/academic activities: including private tutoring or academic support classes, foreign language classes, music, drawing/painting, computing (ICT).
- Sports activities: such as soccer, athletics, basketball, etc.
- Recreational activities: these include performance activities such as theatre, dance, as well as other activities listed above in (others).

Academic performance was analyzed based on marks in the subjects of Spanish, Mathematics, and English, given by each teacher from each group-class, and a general academic performance estimation was obtained calculating the average of these three variables.

Data Analysis

Several descriptive and correlational analyses were made. After examining the goodness of fit with the Kolgomorov-Smirnov test, it was verified that the variables did not meet the principle of normality, therefore we decided to use non-parametric statistical tests. The correlational analysis consists of calculating Spearman's Rho statistical coefficient. Followed, differential analysis is performed with the Mann-Whitney U test for two independent samples taking into account the extracurricular activities and academic performance variables depending on gender and type of school (state/private).

Finally, we look for any academic performance differences based on the time spent on extracurricular activities by making groups of three based on the mean and standard deviation of this last variable. This differential analysis is performed using the Kruskal-Wallis H test for k independent samples.

All descriptive, correlational, and inferential analyses were performed using the SPSS (Statistical Package for Social Sciences) version 24.0.

Results

Descriptive Analysis

During extracurricular activities analysis, we take into account the number of activities carried out by the students throughout a school week, and the hours spent on them. The results shown in Table 1 indicates a mean of 2.02 activity done by the students per week, and a 5.51 hours mean of time spent on them. The highest mean regarding extracurricular activities, that is 2.53, corresponds to all the academic/cognitive activities students spent time on per week, followed by physical activities with a mean of 2.18 hours.

Table 1

Descriptive statistics on the variable extracurricular activities

	<i>M</i>	<i>DT</i>	Average	Man.	Max.
Number of extracurricular activities	2.02	1.129	2	0	7
Hours spent on extracurricular activities	5.51	3.457	5	0	20
Hours spent on cognitive/academic activities	2.53	2.624	2	0	14
Hours spent on sports activities	2.18	2.218	2	0	13
Hours spent on recreational activities	0.83	1.538	0	0	18

Most of the students (35.1%) carry out two extracurricular activities per week. Those who carry out only one represents (26.8%). Students and with three activities represent (22.5%), while only 6.9% of the total do not attend extracurricular activities (Figure 1).

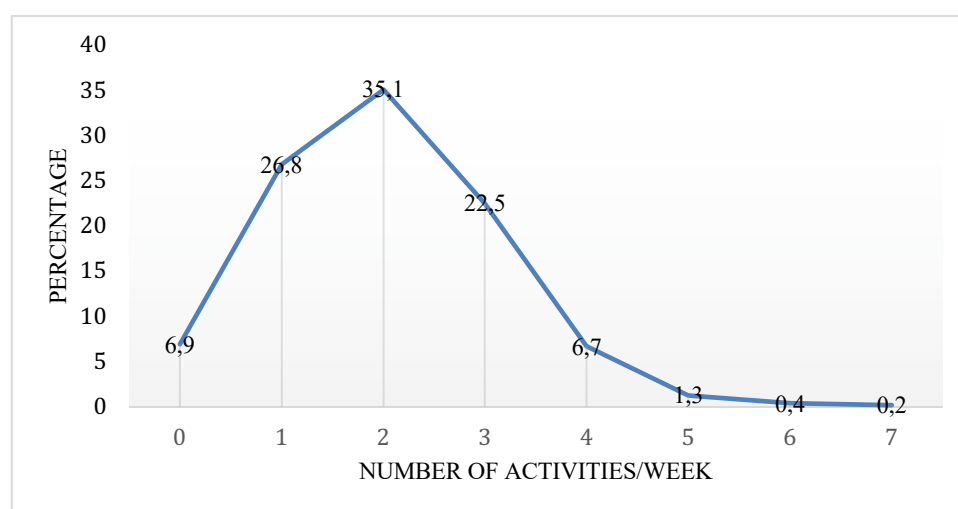


Figure 1. Percentage distribution of the number of extracurricular activities attended per week.

A descriptive analysis based on each of the extracurricular activities that appear on the ad hoc questionnaire is shown in Table 2. This analysis reports that the activities in which students spend more time after school hours are sports activities ($M = 2.18$) followed by private support classes or school reinforcement ($M = 1.01$).

Table 2

Mean, standard deviation, median, minimum and maximum of each extracurricular activity

	<i>M</i>	<i>DT</i>	Average	Min.	Max.
Academic support classes	1.01	2.070	0	0	12
Language	0.92	1.239	0	0	6
Music	0.43	1.233	0	0	10
Art	0.09	0.421	0	0	4
Computing (ICT)	0.08	0.348	0	0	4
Sports	2.18	2.218	2	0	13
Theatre	0.11	0.362	0	0	4
Dance	0.36	1.044	0	0	8
Others	0.38	0.983	0	0	10

Data about the other extracurricular activities carried out by the students is found on the qualitative analysis of the questionnaires. It includes typing, robotics classes, attendance at meditation and yoga sessions, mediation training, welfare centers for social and educational challenged students, chess, tambourine, ecological gardening construction and maintenance, and skating.

The analysis of the three groups of extracurricular activities according to the purpose (academic/cognitive, sports, and recreational activities) concludes that 46% of students spend most of their time performing cognitive/academic activities, 39% on sports activities while only 15% attend recreational activities.

Correctional Analysis

The correlation analysis performed is based on the variables included in extracurricular activities (Table 3). The results conclude that there is a significant positive connection between the number of extracurricular activities performed, and the time spent on them, be it cognitive/academic activities, sports, and recreational activities (in hours). A significant negative connection on the time spent on sports and recreational activities is observed. There is no significant correlation between time spent on cognitive/academic activities and time spent on sports and recreational activities.

Table 3

Correlations between extracurricular activities variables

	ACTEX	HOREX	EXAC	EXDE	EXRE
ACTEX	1	.645**	.587**	.224**	.357**
HOREX		1	.710**	.490**	.208**
EXAC			1	-.015	-.010
EXDE				1	-.246**
EXRE					1

Note: ACTEX: Number of extracurricular activities carried out; HOREX: Hours of extracurricular activities per week; EXAC: Hours of cognitive/academic activities per week; EXDE: Hours of sports activities per week; EXRE: Hours of recreational activities per week; ** $p < .01$ * $p < .05$

The results of correlation analysis between extracurricular activities and academic performance variables are displayed in Table 4. As shown, a significant positive connection between extracurricular activities and Spanish academic performance is reported. On the other hand, the correlation is reported negative between the number of hours spent on recreational activities and academic performance in English.

Table 4

Correlations between extracurricular activities and academic performance

	RLC	RM	RLI	RG
Number of activities carried out	.090*	.058	-.001	.057
Hours per week	.053	.027	.033	.045
Cognitive/academic activities	.039	.035	.046	.047
Sports	.065	-.018	.043	.029
Recreational Activities	-.027	.012	-.107*	-.038

Note: RM: Academic performance in Mathematics; RLI: Academic performance in English; RG: General academic performance; ** $p < .01$ * $p < .05$

Differential analysis of extracurricular activities and academic performance based on gender and type of school

A differential analysis between extracurricular activities and academic performance is carried out based on the Mann-Whitney U calculation taking gender into account. The results show significant differences between the number of activities, the time spent on sports, and the number of hours spent on recreational activities. In the case of academic performance, the

results indicate no significant differences based on gender in any of the subjects considered in this study, nor general academic performance (Table 5).

Table 5

Mann-Whitney U test comparing the type of extracurricular activities with academic performance regarding gender

	U	Z	p
Number of extracurricular activities	28641.500	-2.952	.003*
Hours of extracurricular activities	33115.500	-.215	.830
Hours of cognitive/academic activities	32364.500	-.669	.503
Hours of sports activities	24504.000	-5.418	.000**
Hours of recreational activities	22002.000	-7.928	.000**
Academic performance in Spanish	33345.000	-.080	.936
Academic performance in Mathematics	33323.500	-.251	.802
Academic performance in English	33058.000	-.251	.802
General Academic Performance:	33161.500	-.187	.851

Note: *p<.05; **p<.001

Females perform a greater number of extracurricular activities (M = 2.17) than males (M = 1.89). Also, the time spent on sports is greater in males (M = 2.58) while females spend fewer on this type of activities (M = 1.71), different in what refers to recreational activities, where females scores are (M = 1.35), higher than the (M = .39) of males (Figure 2).

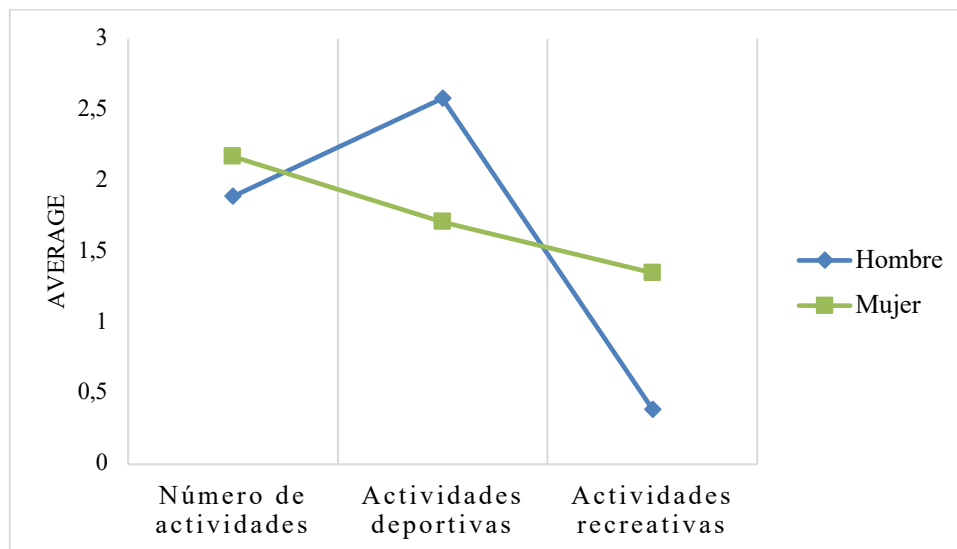


Figure 2. Different extracurricular activities mean depending on gender

Table 6 shows the results from the differential analysis based on gender, taking extracurricular activities carried out throughout the school week into account. There are significant differences regarding music classes attendance, sports, theater, and dance, which is the highest means from males in sports and females in music, theater, and dance.

Tabla 6

Mann-Whitney U test comparing extracurricular activities regarding gender

Extracurricular Activities	Average Range		U	Z	p
	Males (n = 329)	Females (n = 291)			
Academic support classes	265.81	253.25	31860.00	-1.276	.202
Language	256.74	263.79	32571.00	-.601	.548
Music	245.94	276.35	29556.00	-3.648	.000**
Art	259.13	261.01	33237.00	-.364	.716
Computing (ICT)	264.04	255.30	32352.00	-1.566	.117
Sports	292.17	222.60	24504.00	-5.418	.000**
Theatre	247.00	275.11	29852.50	-4.165	.000**
Dance	231.08	293.62	25411.50	-7.931	.000**
Others	253.32	267.76	31616.50	-1.592	.111

Note: *p<.05; **p<.001

Another differential analysis of extracurricular activities and academic performance is carried out regarding the type of school, resulting in significant difference between the time spent on sports-type activities, reaching a mean of (M = 2.42) in private school, which is higher than the (M = 1.65) of state schools. No significant differences were found regarding academic performance based on the type of school (Table 7).

Table 7

Mann-Whitney U test comparing the type of extracurricular activities and academic performance regarding the type of school

	U	Z	p
Number of extracurricular activities	28356.500	-.174	.862
Hours of xtracurricular activities	26306.500	-1.476	.140
Hours of cognitive/academic activities	26253.000	-1.536	.124
Hours of sports	22783.000	-3.810	.000**
Hours of recreational activities	27302.000	-.985	.325
Academic performance of Spanish	27583.500	-.668	.504
Academic performance of Mathematics	27138.500	-.953	.340
Academic performance of English	28292.000	-.211	.833
General Academic Performance:	27580.000	-.662	.508

Note: *p<.05; **p<.001

On the other hand, significant differences are found regarding the type of school in classes of Language, Computing (ICT), Sports and Theater, with the highest mean in Language and Theater in state schools, while Sports and Computing (ICT)) reach a higher mean in private schools (Table 8).

Table 8

Mann-Whitney U test comparing extracurricular activities regarding the type of school

Extracurricular Activities	Average Range		U	Z	p
	State Schools (n = 234)	Private Schools (n = 386)			
Academic support classes	263.70	258.37	28031.50	-.501	.616
Language	282.27	250.16	25079.00	- 2.533	.011*
Music	258.15	260.82	28325.50	-.296	.767
Art	260.64	259.72	28519.00	-.164	.870
Computing (ICT)	243.50	267.29	25996.50	- 3.940	.000**
Sports	223.29	276.21	22783.00	- 3.810	.000**

Theatre	293.30	245.29	23325.00	-	6.576	.000**
Dance	249.39	264.68	26933.50	-	1.793	.073
Others	265.63	257.51	27725.00	-	-.827	.408

Note: *p<.05; **p<.001

Differential analysis of academic performance regarding the time spent on extracurricular activities

Three groups were formed to analyze the different means in academic performance regarding the time spent on extracurricular activities. According to the total of hours spent on extracurricular activities, a mean of (M = 5.51) was found and a standard deviation of (DT = 3.457) out of three groups between a minimum of 0 hours and a maximum of 20. The first group was defined from 0 hours to the mean minus half standard deviation (0; 3.7815) including 29.3% of the students. The second was formed by 45.7% of students, which scores were from the mean minus half standard deviation to the mean plus half standard deviation (3.7816; 7.2385), and the third group was made up of students with scores between the mean plus half standard deviation and the higher score in extracurricular hours (7.2386; 20) which corresponded to 25.0% of students.

Once the differential analysis was finished, the results from the Kruskal-Wallis H test for the study of academic performance in Spanish, Mathematics, English, and general academic performance indicates that there are no significant differences regarding the time spent on extracurricular activities (Table 9).

Table 9

Kruskal-Wallis H test for academic performance regarding the groups from extracurricular activities

Academic Performance	Average Range			χ^2	p	η_p^2
	Group 1 (n = 182)	Group 2 (n = 283)	Group 3 (n = 155)			
Spanish	244.63	260.58	276.91	3.351	.187	.006
Mathematics	253.26	260.88	266.28	.558	.757	.001
English	254.95	261.91	262.43	.251	.882	.000
General	248.10	262.65	269.08	1.513	.469	.002

Discussion and Conclusions

In the present study, the connection between extracurricular activities and academic performance has been analyzed considering gender and type of school to report some differences that may be significant around these variables. Regarding the performance of extracurricular activities, with students as our sample of the study, they perform an average of two activities per week, spending approximately five hours on them. Extracurricular activities were grouped into three categories depending on its purpose: academic/cognitive (among which

are academic support, reinforcement or language classes), sports, and recreational (including dance or theater among others). According to these categories, the results reported that students spend more time on academic/cognitive activities, although it is true that when analyzed the activities in the ad hoc questionnaire separately, most students take part in sports out of school hours.

The differential analysis regarding gender results following other studies where significant differences have been found in both the number and type of activities carried out, with males spending more time on sports and females on recreational activities (Alfonso-Benlliure and Huizar, 2013; Cladellas et al., 2011; Hermoso et al., 2010; Pros et al., 2015). According to this study, females carry out a greater number of activities in general compared to their peers. Also, students who take part in numerous sports activities participate less on recreational activities. It should be pointed out that attending extracurricular academic activities can be a sign of poor academic performance, given that most of the students attending support classes present learning difficulties or low grades.

Regarding the type of school, the most significant difference has been found in Sports activities, even if there are differences as well in extracurricular activities such as attending computing (ICT), where more students come from private schools; while those in state schools attend more language and theater classes. This is per previous studies that reported a bigger interest in reading and writing from students of state schools (Alfonso-Benlliure and Huizar, 2013).

Regarding the time spent on extracurricular activities, this study reports no significant differences between male and female students who attend extracurricular activities, which is not in accordance with the previously mentioned studies, which, without clear results, yet sometimes contradictory, even lacking officiality (Fashola, 2001) - report that when students take part in extracurricular activities, their academic performance improves (Duncan, 2000; Pros et al., 2015), especially when these are compatible and linked with those performed at school (Noam et al., 2003).

In addition, this study confirms that students with a lot of extracurricular activities obtain higher academic performance in Spanish, while those with a great number of recreational activities obtain lower grades in subjects such as English. Attending language classes is one of the variables included in extracurricular activities, therefore, it is expected for students to demonstrate its direct and close connection to academic performance in English, but this has not been verified.

Finally, we can point out that the greater the number of extracurricular activities, especially sports, the greater the academic performance, which notably improves, as previous studies report, *El autoconcepto y la motivación hacia el aprendizaje escolar* (Alfonso -Rosa, 2016; Booth et al., 2013; Bradley et al., 2013; Castelli et al., 2007; Esteban-Cornejo et al., 2014; González and Portolés, 2014; Martínez and Bernal, 2015; Paz-Navarro et al., 2009; Ramírez et al., 2004). It is particularly important to remark the connection and possible predictive factor of extracurricular music classes regarding performance in English, which is in accordance with previous studies that reveal a better academic performance when these types of activities are held, both in and outside the school campus (Jábega, 2008; Vílchez, 2009).

The incidence of other affective and motivational implicit variables should be taken into account regarding extracurricular activities, since a lot of practice of those can be associated, for example, with higher levels of stress or behavioral challenges (Cladellas et al., 2011). In the same way, social and cultural contexts, as well as economic level are determining factors to

take part in these activities. Therefore, conclusions of a connection between stress and academic performance are drawn.

Within the limitations of this study, it should be noted that the non-random methodological selection of the sample does not allow generalizing the results obtained from the students. Also, there are few studies on this topic that support the results reported. This study shows again how wide can the field of learning and academic performance be, leading this to different future lines of research, with variables such as contextual characteristics of the schools, where analyzing differences according to the location area (rural or urban) would be relevant, as well as the educational stage, social, economic, and cultural level of the families and their involvement on the education of their children. It would be relevant to consider a middle school in future studies since a cross-sectional study does not allow causal connections. It would be advisable to carry out quasi-experimental and longitudinal studies to check whether the differences remain over time.

The key may lie in the planning process of these activities as complement classes adapted to each student to solve their needs appropriately. Within every school, the role of teachers can be relevant in terms of advising families, especially those with elementary school students, helping them decide which and how many activities should their children take part in to avoid overloading them and prevent further personal problems.

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