

# Out-of-school contact with L2 English across four educational levels

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**ABSTRACT:** This paper analyses the effect of out-of-school contact in the acquisition of L2 English in four groups of students belonging to four different educational levels: secondary education (n=38), baccalaurate (n=25), state language schools (n= 32) and university (n=18). Differences in the frequency with which the four learner groups engage in different types of out-of-school activities are analysed, i.e. films, games, music, reading, writing and speaking, as well as gender-related differences and the potential influence of the contact with out-of-school activities in their academic achievement in the four skills. Data were collected by means of a questionnaire and their grades in the four skills. Findings indicated significant differences in the frequency of exposure to watching films, playing games, and to reading, writing and speaking across groups. No significant gender-related differences were found within groups. Finally, significant associations were observed between the activities of watching films, listening to music, reading and speaking and their academic achievement.

**Key words:** out-of-school contact, extramural activities, frequency, gender-related differences, academic achievement.

## Contacto con el inglés como L2 fuera del aula en cuatro niveles educativos

**RESUMEN:** Este trabajo analiza el efecto del contacto fuera del aula en la adquisición del inglés como L2 en cuatro grupos de alumnos pertenecientes a cuatro niveles educativos diferentes: educación secundaria (n=38), bachillerato (n=25), escuelas de idiomas (n= 32) y universidad (n=18). Se analizan las diferencias en la frecuencia con la que los cuatro grupos de alumnos participan en distintos tipos de actividades fuera del aula, es decir, películas, juegos, música, lectura, escritura y expresión oral, así como las diferencias relacionadas con el género y la posible influencia del contacto con actividades fuera del aula en su rendimiento académico en las cuatro destrezas. Los datos se recogieron mediante un cuestionario y sus calificaciones en las cuatro destrezas. Los resultados indicaron diferencias significativas en la frecuencia de exposición a ver películas, a jugar y a leer, escribir y hablar entre los grupos. No se observaron diferencias significativas relacionadas con el género dentro de los grupos. Por último, se observaron asociaciones significativas entre las actividades de ver películas, escuchar música, leer y hablar y su rendimiento académico.

**Palabras clave:** contacto fuera del aula, actividades fuera del aula, frecuencia, diferencias relacionadas con el género, logro académico.

## 1. INTRODUCTION

The widespread use of the internet has provided unlimited contact with English out-of-school. In recent years, Second Language Acquisition has turned its attention to the study of how this availability of digital media can enrich the limited exposure students have in a typical classroom and promote learning. Studies on informal learning have been conducted with children (e.g. Lindgren and Muñoz, 2013; Muñoz, Cadierno and Casas, 2018, Leona et al., 2021), younger and older adolescents and adults (e.g. Muñoz, 2020; Muñoz & Cadierno, 2021; Sockett, 2014) but none, to the best of our knowledge, has compared students in four different educational contexts. The present study tries to fill this gap by including four groups of participants: secondary education students (SE), baccalaurate students (BAC), state language schools' students (SLS) and university students (UNI) in Spain. Secondary education is basic and obligatory from 12 to 16 years, Spanish baccalaureate consists of two optional years in High School, from 16 to 18, which are necessary to attend University. State Language Schools are educational institutions in Spain that teach foreign languages from level A1 to C2. They are ruled by the national legal framework (Royal Decrees 967/1988, 47/1992, 944/2003, 423/2005, 1629/2006, 1041/2017,1/2019) and their students must be over 16. Therefore, most of their students are adult. Finally, higher education starts at 18 and it follows the Bologna system, i.e., official degrees are recognized through Europe and they are structured into the European Credit Transfer system. This study focuses on any possible differences in the frequency and the type of out-of-school activities participants in each of four educational levels engage in and any possible gender-related differences. Finally, the study analyses whether the degree of contact of the four groups with out-of-school exposure is related to their academic achievement.

## 2. OUT-OF-SCHOOL EXPOSURE TO ENGLISH

Out-of-school exposure to English as a Second Language is a relatively young, yet, fast growing field of research. The engagement in out-of-school English activities has been referred to with different terms, such as “informal”, “self-instructed” (Benson, 2011; Benson and Reiders, 2011), “extramural English” (Sundqvist, 2009; Sundqvist and Sylven, 2016) or “online informal learning of English” (Toffoli and Sockett, 2010, Sockett, 2012). Out-of-school contact with English allows for the possibility of incidental learning, i.e., “the process of learning something without the intention of doing so” (Muñoz et al., 2018, p. 1080). According to Rieder (2003), both implicit and explicit learning processes are involved in incidental learning and the learning can thus involve unconscious or conscious processes.

Research has focused on language learning through engagement in out-of-school activities in young and old users. Most studies conducted with children cover different activities, such as watching television, gaming, reading or writing (Olsson, 2011; Sundqvist, 2009), watching television and online exposure (e.g. Rodgers and Webb, 2011; Sockett, 2014; Sockett and Kusyk, 2015), gaming (e.g. Peterson, 2010, 2012, 2016; Scholz, 2017), or affinity spaces (Gee, 2007). In addition, previous research has shown gender-related differences in the types of extramural activities that learners engage in. For example, in several studies, males have

been found to spend more time in digital gaming than females who, in turn, spend more time on watching films and pastime language-related activities such as Facebook (e.g., Hannibal Jensen, 2017; Muñoz, 2020; Sundqvist and Sylvén, 2014). Finally, studies tend to show a positive relationship between out-of-school exposure and language learning.

Studies have also been conducted with adolescents, in areas such as digital gaming (e.g., Sundqvist and Wikström, 2015), learning English independently from the teacher, mainly listening to music and watching films and television (Lam, 2004), writing in computer-mediated communication (Lam, 2000), or the influence of age and gender differences (Muñoz, 2020). L2 English proficiency in these studies has been measured by means of different tests, for example, speaking and vocabulary tests (e.g. Sundqvist, 2009). In general, the tendency is also to show a positive correlation between out-of-school contact and L2 learning. Out-of-school contact has also been investigated in adult learners. Sockett (2014) acknowledges that a majority of the university students surveyed engage in L2 English extramural activities. Sockett (2014) and Toffoli and Sockett (2010) indicate that television series-viewing, social networking and listening to music on demand are the most frequent activities in out-of-school exposure. Similar results were found by Murray (2008) who also reported that eight adult English learners in Japan were mainly exposed to American television, films and music. These studies point mainly at one direction, namely, exposure to L2 outside the classroom has beneficial effects in L2 acquisition.

### 3. USAGE-BASED LINGUISTICS

Usage-based linguistics is a term that covers a number of approaches sharing a specific perspective on language and language learning. It posits that language is linked to human cognition and that it is symbolic and formed by form-meaning pairs, i.e. constructions used for communication (Ellis and Cadierno, 2009). Language learning is input dependent and based on experience. Tomasello (2003) also acknowledges that participation in particular usage events facilitates the emergence of language knowledge, leading him to assert that “language structure emerges from language use” (p. 5). From this perspective, L2 learning relies on the experience of the learner with specific language usage events and how that experience is handled. Attention is also paid to the frequency and salience of the constructions learners are exposed to, the significance in the comprehension of utterances or factors connected with learner attention, such as automaticity or transfer (e.g. Ellis 2006, 2008). Ellis and Cadierno (2009, p.118) also consider that the determinants of learning include input frequency, form, function and the interactions between these. Tyler et al. (2018) also underline that the understanding of language learning determines its investigation and teaching.

Frequency has an important role in both language learning and processing. Muñoz et al. (2018) claim that the impact of frequency may explain the relevant role of out-of-school contact in L2 language learning. A group of 132 Danish children and a group of 128 Spanish children participated in their study. Danish children had just begun formal instruction in English while Spanish children had begun English instruction in preschool. It was observed that Danish children had more opportunities to learn the L2 out-of-school thanks to their contact with audiovisual material. Spanish learners were exposed to the L2 mainly in the classroom; however, the Danish children were able to catch up with the Spanish ones. This

seems to support the role of input frequency and participation in language events, as claimed in usage-based linguistics, as well as the role of implicit and incidental learning through contact with the L2 outside the classroom.

#### **4. EMPIRICAL STUDY**

The present study contributes to research on the role of out-of-school contact in L2 learning. The comparison of the four groups may shed light on the possible differences in the impact of out-of-school contact on learners' four language skills across groups, thus allowing for a more nuanced discussion of what out-of-school activities relate to what language skills and whether there are gender-related differences. Additionally, the study also analyses whether out-of-school contact is related to the academic achievement of the four groups. Thus, the present study addresses the following research questions:

1. Are there differences in the frequency with which the four learner groups engage in different types of out-of-school activities?
2. Are there any gender-related differences in the frequency with which learners engage in different types of out-of-school activities?
3. Is degree of contact to out-of-school English activities related to academic achievement in the four skills and if so, which activities are associated with which skills?

##### **4.1. Participants**

A total of 113 participants in the context of Galicia took part in this study: a group of 38 students (11 female, 17 male) in their fourth year of compulsory secondary education and whose mean age was 14.8, another group of 25 (12 female, 13 male) students in their first year of baccalaurate, whose mean age was 16, a group of 32 State Language School students (21 female, 11 male) studying level C1 according to the European Framework of Reference for Languages and whose mean age was 38.7. Finally, a group of 18 University students (15 female and 3 male) with a mean age of 19.8 studying their fourth year in the Degree of English language and literature at a Spanish University completed the study. Both the secondary education students and the baccalaureate students attended regular public schools in Galicia.

##### **4.2. Research instruments and procedures**

Data were collected by means of a questionnaire and the grades of the participants in their respective final exams. The questionnaire was adapted from Hannibal Jensen (2017) and Muñoz and Cadierno (2021). It aimed at collecting information about their frequency of exposure to English out-of-school by means of watching films, playing games, listening to music, reading, writing and speaking (see appendix 1). It was first piloted in a group of ten students. Information about their grades was obtained from their teachers.

Each teacher provided the grades in the four skills obtained in the final semester exam. Grades in the Spanish educational system corresponds with the following rating in the British

system (from 1 to 4 is equivalent to D, 5 and 6 to C, 7 and 8 to B and 9 and 10 to A). The questionnaire was sent by email to each of the teachers who agreed to participate in the study. Participants filled in the questionnaire in their L2 English during their English class. They were given 20 minutes to complete the task. The only instruction they were given was to answer all the questions.

### 4.3. Data analysis

The variables analysed have been divided into three levels, depending on the weekly degree of contact with out-of-school activities: low frequency of exposure (L): from less than 30 minutes to 1 hour of exposure, medium frequency (M): from 2 to 4 hours and high frequency (H): from 5 to more than 6 hours. Quantitative analyses have been conducted using a series of Pearson chi-square tests. They were used to analyse any significant differences in the proportions of the frequency of contact with English out-of-school across groups. For the analysis of gender-related differences, as it implied undertaking multiple comparisons, Bonferroni correction was included (adjusted alpha value=0.003).

Finally, descriptive statistics were used to calculate the mean grades of the 113 students. The grades were extracted from the final English exam of the four groups. The final exam was similar across groups, and it was adapted to the different proficiency level of the groups. ANOVA tests were run to examine whether out-of-school contact had a significant influence on their grades in the four skills for each of the activities and post-hoc Tukey tests were conducted to determine which significant associations were related to which skills.

## 5. RESULTS

### 5.1. Frequency of contact with out-of-school activities in English

#### 5.1.1. Films, games and music

Table 1 shows the results of the contact with English films, games, and listening to music.

**Table 1.** *Frequency of out-of-school contact with films, games and music*

Group	FILMS				GAMES				MUSIC			
	No	L	M	H	No	L	M	H	No	L	M	H
SE	10.5	42.1	31.6	15.8	26.3	42.1	13.2	18.4	2.6	39.5	28.9	28.9
BAC	32	44	16	8	36	52	4	8	4	24	48	24
SLS		31.3	43.8	25	65.6	21.9	6.3	6.3	3.1	37.5	31.3	28.1
UNI			44.4	55.6	38.9	44.4	11.1	5.6		11.1	22.2	66.7

*Note:* No=I don't do this; L=Low frequency; M= Mid frequency; H=High frequency; SE= Secondary Education; BAC= Baccalaurate; SLS: State Language School; UNI=University.

A series of Pearson chi-square analyses indicated significant differences across groups in not watching films,  $\chi^2 = 17.98$ ,  $df=3$ ,  $p=0.000$ . The BAC group reported not to watch films to a larger extent than the SLS group ( $\chi^2 9.41$ ,  $df=1$ ,  $p=0.002$ ) and the UNI group ( $\chi^2 = 5.1212$ ,  $df=1$ ,  $p=0.024$ ). Significant differences were also observed in watching films with L frequency ( $\chi^2=11.75$ ,  $df=3$ ,  $p=0.008$ ). BAC students watched films with L frequency more often than UNI students ( $\chi^2=8.46$ ,  $df=1$ ,  $p=0.004$ ), SE students, ( $\chi^2 8.65$ ,  $df=1$ ,  $p=0.003$ ) and SLS students ( $\chi^2 = 5.21$ ,  $df=1$ ,  $p=0.022$ ). Finally, significant differences were also found in watching films with H frequency ( $\chi^2=15.13$ ,  $df=3$ ,  $p=0.002$ ). The UNI group claimed to watch films with H frequency more often than the SE group ( $\chi^2 7.62$ ,  $df=1$ ,  $p=0.006$ ), and the BAC group ( $\chi^2 9.52$ ,  $df=1$ ,  $p=0.002$ ). In summary, the UNI group tends to watch English-speaking films with higher frequency than the SE and BAC groups.

Pearson chi-square tests revealed significant differences across groups in the category of not playing games ( $\chi^2=11.63$ ,  $df=3$ ,  $p=0.009$ ), i.e., the SLS group reported not to play games to a larger extent than the SE group ( $\chi^2=9.34$ ,  $df=1$ ,  $p=0.002$ ). As can be seen, games were not frequently used by any of the groups, especially by the SLS group. In other words, games are not a frequent activity but they are more frequent for younger SE students than for older SLS participants.

Finally, with regard to listening to music, Pearson chi-square analyses showed significant differences in doing this activity with H frequency ( $\chi^2=10.65$ ,  $df=3$ ,  $p=0.013$ ). The UNI group reported listening to music with H frequency more often than the SE group ( $\chi^2=5.71$ ,  $df=1$ ,  $p=0.017$ ), the BAC group ( $\chi^2=6.1729$ ,  $df=1$ ,  $p=0.013$ ) and the SLS group ( $\chi^2=5.5318$ ,  $df=1$ ,  $p=0.019$ ). Thus, the UNI group did this activity more often than the rest of groups.

5.1.2. Reading, writing and speaking

**Table 2.** Frequency of out-of-school contact with reading, writing and speaking

Group	READING					WRITING					SPEAKING				
	No	L	M	H	NA	No	L	M	H	NA	No	L	M	H	NA
SE	18.4	63.2	13.2	5.3		15.8	55.3	21.1	5.3	2.6	21.1	44.7	26.3	7.9	
BAC	24	72	4		4	16	72	12			24	48	24		4
SLS	3.1	37.5	46.9	12.5	6.3	15.6	43.8	31.3	6.3	3.1	18.8	28.1	40.6	6.3	6.3
UNI		16.7	33.3	50		5.6	22.2	50	22.2		11.1	22.2	27.8	38.9	

Note: No= I don't do this; L=Low frequency; M= Mid frequency; H= High frequency; NA=No answer; SE= Secondary Education; BAC= Baccaurate; SLS: State Language School; UNI=University.

Pearson chi-square tests showed significant differences across groups in not reading out-of-school ( $\chi^2=9.45$ ,  $df=3$ ,  $p=0.023$ ). The BAC group reported not to read out-of-school to a higher extent than the SLS group,  $\chi^2=3.9$ ,  $df=1$ ,  $p=0.048$ . Significant differences were also observed in reading with L frequency ( $\chi^2=17.46$ ,  $df=3$ ,  $p=0.001$ ). The BAC group read with L frequency more often than the UNI group ( $\chi^2=10.7$ ,  $df=1$ ,  $p=0.001$ ) and the SE group ( $\chi^2=8.79$ ,  $df=1$ ,  $p=0.003$ ). Significant differences were also found in relation to reading with

M frequency ( $\chi^2=18.03$ ,  $df=3$ ,  $p=0.000$ ). The SLS group and the UNI groups read more frequently with M frequency than the BAC group (SLS group:  $\chi^2=10.47$ ,  $df=1$ ,  $p=0.001$ ; UNI:  $\chi^2=4.63$ ,  $df=1$ ,  $p=0.031$ ). Significant differences also emerged across groups in reading with H frequency ( $\chi^2=27.05$ ,  $df=3$ ,  $p=0.000$ ). The UNI group read with H frequency to a larger extent than the SE group ( $\chi^2=12.78$ ,  $df=1$ ,  $p=0.000$ ), the BAC group ( $\chi^2=12.93$ ,  $df=1$ ,  $p=0.000$ ) and the SLS group ( $\chi^2=6.5837$ ,  $df=1$ ,  $p=0.010$ ,  $p=0.010$ ). In summary, the results indicated that the UNI group spent more time in reading in English outside the classroom than the three other groups.

A series of Pearson chi-square tests indicated significant differences in writing with L frequency ( $\chi^2=11.31$ ,  $df=3$ ,  $p=0.010$ ). The BAC group wrote with L frequency more often than the UNI group ( $\chi^2=8.48$ ,  $df=1$ ,  $p=0.003$ ), the SE group also wrote more frequently with L frequency than the UNI group ( $\chi^2=4.14$ ,  $df=1$ ,  $p=0.041$ ). Significant differences also emerged in writing with M frequency ( $\chi^2=8.74$ ,  $df=3$ ,  $p=0.032$ ). The UNI group wrote with M frequency more often than the BAC group ( $\chi^2=5.74$ ,  $df=1$ ,  $p=0.016$ ). Pearson chi-square tests showed significant differences in the proportions across groups in writing with H frequency ( $\chi^2=8.4$ ,  $df=3$ ,  $p=0.038$ ) but no significant differences were observed, as the p values in writing with H frequency were slightly higher than  $p=0.05$  ( $p=0.052$ ).

Finally, Pearson chi-square tests revealed no significant differences across groups in speaking with L and M frequency, but significant differences were observed in speaking with H frequency ( $\chi^2=19.07$ ,  $df=3$ ,  $p=0.000$ ). The UNI group spoke in English with H frequency more often than the SE group ( $\chi^2=6.03$ ,  $df=2$ ,  $p=0.014$ ), the BAC group ( $\chi^2=8.93$ ,  $df=1$ ,  $p=0.002$ ) and the SLS group ( $\chi^2=6.25$ ,  $df=1$ ,  $p=0.012$ ).

## 5.2. Gender-related differences

A series of Pearson chi-square analyses were also conducted with Bonferroni corrections (adjusted alpha value .003). After this correction no significant differences were found within groups, i.e., no gender-related differences were found in the activities of watching films, playing games and listening to music, reading, writing or speaking. This means that no significant statistical gender-related differences were found within groups. However, overall results for all groups have also been analysed and Pearson chi-square analysis revealed that significant differences between male and female participants were found in watching films, reading, and listening to music. Male participants reported to watch films ( $\chi^2=6.6931$ ,  $df=1$ ,  $p=0.009$ ), read ( $\chi^2=4.0404$ ,  $df=1$ ,  $p=0.044$ ), and listen to music ( $\chi^2=5.6818$ ,  $df=1$ ,  $p=0.017$ ) more often than female students.

## 5.3. Degree of contact with extramural English and academic achievement

ANOVA tests showed no significant association between the frequency with which the learners engaged in playing games and writing and their grades in the different skills. In contrast, significant associations were found in relation to the activities of watching films, listening to music, reading and speaking. Tables 3, 4, 5 and 6 indicate the results for each of the activities that showed to have an effect on the participants' grades. They include the number of students, the frequency of contact with the different out-of-school activities that had a significant influence on their grades, their mean grades in each of the skills and

the standard deviations. Four students did not do the writing section of the English exam, therefore only the results of 109 students were included in the analysis of this skill. In the rest of skills, the results of the 113 participants were analysed.

**Table 3.** *Frequency of extramural film watching and mean grades for each of the four skills*

SKILL	OUT-OF-SCHOOL CONTACT	NUMBER OF STUDENTS	MEAN GRADES	STANDARD DEVIATION
Reading	I don't do this	12	3.6	2.67
	Low	37	6.8	2.39
	Mid	38	7.1	2.06
	High	26	7.5	1.91
	Total	113	6.7	2.44
Writing	I don't do this	12	5	2.68
	Low	36	5.5	2.17
	Mid	37	6.7	2.07
	High	24	7.7	1.96
	Total	109	6.3	2.32
Listening	I don't do this	12	4.2	1.96
	Low	37	6	2.05
	Mid	38	6.7	1.92
	High	26	7.3	2.12
	Total	113	6.3	2.17
Speaking	I don't do this	12	6.1	2.15
	Low	37	6.4	2.02
	Mid	38	6.9	1.98
	High	26	7.6	1.73
	Total	113	6.8	2.00

ANOVA tests indicated that the association between learners' degree of watching films in English and their grades was significant in relation to reading ( $p=0.000$ ), listening ( $p=0.000$ ) and writing ( $p=0.000$ ). With regard to reading, a significant difference in their reading grades was found between the participants who watched films vs. those who did not watch them at all ( $p=0.000$ ). With respect to the listening skill, significant differences in their listening grades were also found between the participants who did not watch films vs. those who watched them with L frequency ( $p=0.039$ ), with M frequency ( $p=0.002$ ) or with H frequency ( $p=0.000$ ). Finally, in the writing skill, significant differences were also



observed in writing grades between those who did not watch films vs. those who watched them with H frequency ( $p=0.004$ ) and between those who watched them with L frequency vs. with H frequency ( $p=0.001$ ). In all cases, those who showed a higher degree of contact with watching films obtained higher marks.

**Table 4.** *Frequency of extramural listening to music and mean grades in the four skills*

SKILL	OUT-OF-SCHOOL CONTACT	NUMBER OF STUDENTS	MEAN GRADES	STANDARD DEVIATION
Reading	I don't do this	3	5	3.46
	Low	35	6.6	2.46
	Mid	37	6.3	2.59
	High	38	7.2	2.15
Total		113	6.7	2.44
Writing	I don't do this	2	5.1	2.26
	Low	34	5.5	2.24
	Mid	36	6	2.32
	High	37	7.5	1.98
Total		109	6.3	2.32
Listening	I don't do this	3	3.5	2.52
	Low	35	6.2	2.06
	Mid	37	6.1	2.16
	High	38	6.8	2.17
Total		113	6.3	2.53
Speaking	I don't do this	3	6	2.53
	Low	35	6.2	1.83
	Mid	37	6.5	2.04
	High	38	7.7	1.80
Total		113	6.8	2.00

ANOVA tests showed significant associations between listening to music and their grades in writing,  $p=0.001$ . Post-hoc Tukey tests revealed significant differences in their writing grades between those who listened to music with L frequency and the participants who practiced this activity with H frequency,  $p=0.001$ .

**Table 5.** *Frequency of extramural reading and mean grades in the four skills*

SKILL	OUT-OF-SCHOOL CONTACT	NUMBER OF STUDENTS	MEAN GRADES	STANDARD DEVIATION
Reading	I don't do this	14	5.2	3.28
	Low	57	6.6	2.46
	Mid	27	7.5	1.83
	High	15	6.8	1.91
Total		113	6.7	2.44
Writing	I don't do this	13	4.8	2.86
	Low	55	6	2.22
	Mid	26	7.3	1.75
	High	15	7.4	2.13
Total		109	6.3	2.32
Listening	I don't do this	14	3.6	2.43
	Low	57	6.3	1.92
	Mid	27	7.4	1.52
	High	15	6.9	1.81
Total		113	6.3	2.17
Speaking	I don't do this	14	5.2	2.69
	Low	57	6.7	1.81
	Mid	27	7.3	1.65
	High	15	7.7	1.70
Total		113	6.8	2.00

ANOVA tests showed a significant association between the frequency of extramural reading and their grades in listening,  $p=0.000$ , speaking,  $p=0.002$  and writing,  $p=0.002$ . Post-hoc Tukey tests revealed a significant association between reading and their listening grades. Those who did not engage in extramural reading had worse grades in listening than those who did so with L, M and H frequency,  $p=0.000$ . Significant associations were also found between extramural reading and their speaking grades. Those who did not read had lower grades than the participants who read with M  $p=0.005$  and H frequency  $p=0.002$ . A significant association was also found between their engagement in reading and their writing grades. The participants who read with M frequency had higher writing grades than those who did not read outside the school,  $p=0.007$ . Thus, findings indicate that higher contact with reading out-of-school leads to higher grades in listening, speaking and writing.

**Table 6.** *Frequency of extramural speaking and mean grades in the four skills*

SKILL	OUT-OF-SCHOOL CONTACT	NUMBER OF STUDENTS	MEAN GRADES	STANDARD DEVIATION
Reading	I don't do this	22	5.4	3.01
	Low	42	6.9	2.29
	Mid	34	7.4	2.16
	High	12	6.9	1.86
Total		110	6.6	2.44
Writing	I don't do this	22	5.2	2.83
	Low	40	6.2	2.09
	Mid	32	6.8	2.17
	High	12	7.8	1.69
Total		106	6.5	2.32
Listening	I don't do this	22	5.6	2.75
	Low	42	6.1	2.13
	Mid	34	6.9	1.85
	High	12	7	1.82
Total		110	6.4	2.17
Speaking	I don't do this	22	5.6	2.16
	Low	42	6.8	2.00
	Mid	34	7.1	1.81
	High	12	8.2	1.10
Total		110	6.9	1.65

*Note:* In this question, 3 students did not provide an answer. Their information is not included in the table.

ANOVA tests showed significant associations between extramural speaking and the learners' speaking grades,  $p=0.004$ . Post-hoc Tukey tests showed that participants who engaged in extramural speaking with H frequency had higher grades than those who did not,  $p=0.002$ . Thus, as expected, frequent extramural English speaking seems to have a positive influence in their speaking grades.

## 6. DISCUSSION

### 6.1. Frequency of contact in the different types of out-of-school activities

Watching films in English seems to be a highly frequent activity for UNI students, and to a smaller extent for SLS students. In contrast, SE and BAC students tended to do

this activity with lower frequency. This difference may be age-related, as SE and BAC students are teenagers whereas SLS and UNI students are adults. This result supports the findings in a series of studies conducted by Sockett and colleagues at the University of Strasbourg, which showed that watching films and series is a frequent listening activity with series-viewing increasing in frequency from 2009 to 2011 (Sockett, 2014; Toffoli and Sockett, 2010) for adults.

With regard to the activity of playing games in English, Pearson chi-square tests showed that the SLS reported not to play games to a higher extent than the rest of groups. This finding may also be age-related as the SLS group is composed by adults and their mean age is higher than the rest of groups. In general, findings indicate that participants did not play games at all or they played them with low frequency. A tentative explanation for this is that playing games is preferred by younger participants, as previous studies indicated (e.g. Muñoz, 2020)

As for listening to music, Pearson chi-square tests showed that UNI students listened to music with higher frequency than the rest of the groups. It is a more frequent activity than playing games. The reason for this may be that music is easily available and it does not require attention or concentration, i.e., it can be listened to while doing other activities.

Pearson chi-square tests showed that extramural reading appears to be a highly frequent activity for UNI students and an activity done by SLS students with medium frequency. In contrast, SE and BAC students engaged in extramural reading with lower frequency. This finding also seems to be age-related, i.e., the older the mean age of the groups is, the more they read. In addition, UNI students must have engaged in out-of-school reading as their major is English language and literature. Muñoz (2020) also found a higher frequency of reading in adults than in adolescents.

With regard to writing, Pearson chi-square tests showed that UNI students tended to practice this activity with medium frequency, while SE, BAC and SLA students appeared to write with lower frequency. In line with the explanation presented above, UNI students may have been more used to writing emails and working with texts outside the classroom due to the assignments related to their university courses.

Finally, in relation to extramural speaking, Pearson chi-square tests indicated that while SLS students showed a tendency to do this activity with medium frequency, it is again the group of UNI students who reported speaking with higher frequency. In contrast, both SE and BAC students seemed to practice this skill with lower frequency. The UNI students in this study were specializing in English language and literature, they reported that it is common for them to have friends abroad and use tools such as skype to communicate with them. In contrast, SE and BAC students may not have had such a wide experience of contact with students from other countries. As Sockett (2014, p. 37) mentions online speaking tends to be limited if there is no relationship with other English users available for synchronous video communications.

In summary, the SLS and UNI groups watched films with the highest frequency. Playing games was not a frequent activity, but the SE group was the one that did this activity with higher frequency. Listening to music was more frequently done by the UNI group, and the same pattern was observed for extramural reading, writing and speaking. Both the SLS and the UNI group specialize in English, therefore they are interested in learning the language.

### 6.3. Frequency of exposure and gender-related differences

After conducting Pearson chi-square tests and applying Bonferroni corrections for multiple comparisons, no within-group differences were found and only a few significant differences were found across groups. The gender-related differences were minor. In other words, in contrast to previous studies that have shown gender differences in the types of extramural activities that learners engage in (e.g., Hannibal Jensen, 2017; Muñoz, 2020; Sundqvist and Sylvén, 2014), the results of our study suggest that gender is not a relevant variable. It may be the case that the small sample used in our study does not have enough power to make claims about the variable of gender and that larger studies are needed to analyse this variable. The analysis of overall results in our study did reveal significant gender-related differences in that males watched films more frequently than females, read more frequently and engaged in out-of-school listening to music more frequently. However, mixed results have also been found in previous research. In a study by Muñoz (2020) it was observed that females exhibited higher frequency in watching films, however, in the study by Sundqvist and Sylvén (2014) 10 to 11-year-old males reported watching films to a higher extent than females. Regarding reading, overall results in our study indicate that males read more frequently than females. In other studies, such as Muñoz (2020) females read out of school with higher frequency, however, age was found to be more relevant than gender.

With regard to listening to music, overall results indicate that males tend to listen to music more frequently than females. In a similar study, Muñoz (2020) showed that female adolescents reported listening to music more frequently than male adolescents, and male and female adults but no differences were found between female and male adults. In the present study, within-group comparisons did not reveal any gender-related differences regarding age and the activity of listening to music, only overall results indicate a preference for males to listen to music out of school. To sum up, in our study results within groups do not reveal any gender-related differences and overall results indicate a slight preference for males to watch films, read and listen to music.

### 6.3. Frequency of out-of-school contact and academic achievement

The analysis of the results of the four groups revealed that the extramural activities of watching films, listening to music, reading and speaking in English influenced the students' grades while playing games and writing had no effect on their academic achievement in any of the skills. Studies in other contexts have also indicated no positive influence of gaming on their grades, such as Peters (2018) in the context of Flanders and Muñoz et al. (2018) in Denmark. However, in other contexts positive correlations have been found, for example, De Wilde et al. 2020 in Flanders and Sundqvist and Wilkström, 2015 in Sweden. Muñoz and Cadierno (2021) consider that these mixed results may be due to differences in the types of games that are chosen in different geographical contexts (Kuppens, 2010; Sylvén & Sundqvist, 2012) the students' L2 proficiency level and the activities they are doing while gaming (e.g., Hannibal Jensen, 2017). Our results seem to indicate that the four groups of participants are not exposed to gaming long enough to show any positive effects. This also reinforces the usage-based assumption that language learning is input-dependent (Ellis and Cadierno, 2009) and that frequency of exposure plays a key role. With regard to writing,

no significant positive effects were found in their grades either. A similar result was found by Muñoz and Cadierno (2021).

In contrast, significant positive associations have been found between the extramural activities of watching films, listening to music, reading and speaking and their grades. It seems that engaging in watching films benefits their learning in relation to reading, listening and writing, i.e., more than one skill improves with out-of-school contact with films. Similar beneficial effects from watching audiovisual material have been observed in the aural recognition of word forms in Sydorenko (2010) and also in comprehension (Gass et al., 2019). Kusyik and Sockett (2012) also observed that French university students who watched online American television series frequently showed higher comprehension of frequently occurring chunks. Long (2020) has also reported that bi and tri-modal input can positively influence incidental learning. This idea is also present in Paivio's (1986) dual coding theory which considers that both verbal and visual memory are activated at the same time. Thus, input retention and information storage in the long term are favoured. The evidence in our data adds to existing research and provides support for the benefits of watching television and films outside the classroom.

The activity of listening to music has also shown a positive influence on students' grades in writing, especially for those participants who did so with high frequency. This unexpected result may be due to the fact that participants read song lyrics frequently and tended to look for the lyrics on the internet. It may be the case that this practice has a positive influence on their writing. However, no positive effect was observed in relation to listening or other skills. Similar results were found in Muñoz (2020), where listening to music in English showed weaker correlations compared with the activities of reading and watching audiovisual material, and talking to friends.

The extramural reading showed a positive effect in relation to listening, speaking and writing. Those who did not read obtained lower results in listening than those who did so with low, medium or high frequency. The difference between not reading or doing this activity with medium and high frequency also had a positive influence on their speaking grades. In contrast, extramural writing had no positive effect on their grades. It seems that extramural reading is more effective than extramural writing. In fact, those who read with high frequency obtained higher grades in writing. This is in line with the results obtained by Muñoz (2020) in a Spanish group of students, where reading revealed to have the strongest correlation with their grades. However, a striking result of our study is that extramural reading did not have a positive effect on their grades in reading. It may be the case that the reading activities they practice out-of-school (books, comics, magazines, online pages, lyrics) are not similar to the reading practice these learners are used to in the classroom in order to answer the questions in the reading section of the final exam.

Finally, extramural speaking favoured their academic achievement in speaking skill. It seems that being exposed to a high extent to extramural L2 speaking frequently favours their grades in this skill. Similar results were obtained by Muñoz (2020). In her study, the three age groups, young and old adolescents and young adults showed an association between talking in English and their grades in speaking in the English classroom.

## 7. CONCLUSION

This study has explored the effect of extramural English in the acquisition of English as an L2 across four educational levels in the Spanish context. It has provided evidence of differences across groups in their frequency of contact with films, music, games and reading, writing and speaking. Moreover, gender differences have not shown relevant results in the frequency of out-of-school contact with the L2 within groups, which may be related to the small size of the groups. However, overall results have shown that males watch films, read and listen to music more often than females. Finally, it has shown that the extramural activities of watching films, listening to music, reading and speaking English have a beneficial effect on the students' grades, supporting Tomasello's (2003) claim that participating in specific usage events facilitates the emergence of language knowledge and the usage-based notion that language learning is based on experience (Ellis and Cadierno, 2009).

Some pedagogical implications can be drawn from the study. Out-of-school contact with English is beneficial for the acquisition of second languages, and thus, it is important for teachers to become aware of the opportunities for learning outside the walls of the classroom. It is also relevant that teachers enhance learners' awareness of those opportunities for learning that extramural English activities provide, which can also promote learners' autonomy. Moreover, new ways of building a bridge between the different types of activities that learners engage in outside the school and the activities conducted in the classroom should be built.

Finally, this study is not without limitations. On the one hand, the number of participants in each of the groups is not large. Due to COVID-19 restrictions not all students attended class regularly. Future studies should include larger groups of students from different educational contexts. This type of study allows us to discover trends that can be further studied and that provide a good starting point for further research in different geographical contexts.

## 8. REFERENCES

- Benson, P. (2011). Language learning and teaching beyond the classroom: An introduction to the field. In P. Benson, P. & H. Reinders (Eds.), *Beyond the language classroom: The theory and practice of informal language learning and teaching* (pp. 7-16). Palgrave Macmillan.
- Benson, P. & Reinders, H. (2011). *Beyond the language classroom: The theory and practice of informal language learning and teaching*. Palgrave Macmillan.
- De Wilde, V., Brysbaert, M., & Eyckmans, J. (2020). Learning English through out-of school exposure. Which levels of language proficiency are attained and which types of input are important? *Bilingualism: Language and Cognition*, 23(1), 171-185. <https://doi.org/10.1017/S1366728918001062>
- Ellis, N. C., & Cadierno, T. (2009). Constructing a second language: Introduction to the special section. *Annual Review of Cognitive Linguistics*, 7, 111-139. <https://doi.org/10.1075/arcl.7.05ell>
- Ellis, N.C. (2006). Selective attention and transfer phenomena in SLA: Contingency, cue competition, salience, interference, overshadowing, blocking, and perceptual learning. *Applied Linguistics*, 27(2), 1-31. <https://doi.org/10.1093/applin/aml015>

- Ellis, N.C. (2008). Usage-based and form-focused language acquisition: The associative learning of constructions, learned-attention, and the limited L2 endstate. In P. R. Ellis (Eds.), *Handbook of Cognitive Linguistics and Second Language Acquisition* (pp. 372-405). Routledge.
- Gass, S., Winke, P., Isbell, D., & Ahn, J. (2019). How captions help people learn languages: A working-memory, eye-tracking study. *Language Learning & Technology*, 23(2), 84-104. <https://doi.org/10.125/44684>
- Gee, J. P. (2007). *What video games have to teach us about learning and literacy. Revised and updated edition*. Palgrave Macmillan.
- Hannibal Jensen, S. (2017). Gaming as an English language learning resource among young children in Denmark. *CALICO Journal*, 34(1), 1-19. <https://doi.org/10.1558/cj.29519>
- Kuppens, A.H. (2010). Incidental foreign language acquisition from media exposure. *Learning, Media and Technology*, 35(1), 65-85. <https://doi.org/10.1080/17439880903561876>
- Kusyk, M. Sockett, G. (2012). From informal resource usage to incidental language acquisition: language uptake from online television viewing in English. *ASP journal* 62, 45-65. <https://doi.org/10.4000/asp.3104>
- Lam, W. S. E. (2000). L2 Literacy and the Design of the Self: A Case Study of a Teenager Writing on the Internet. *TESOL Quarterly*, 34(3), 457-482. <https://doi.org/10.2307/3587739>
- Lam, W. S. E. (2004). Second language socialization in a bilingual chat room: Global and local considerations. *Language Learning and Technology*, 8(3), 44-65. <http://hdl.handle.net/10125/43994>
- Leona, N., Van Koert, M., van der Molen, M. Rispens, Tims, j. and Snellings, P. (2021). Explaining individual differences in young English language learners' vocabulary knowledge: The role of extramural English exposure. *System*, 96(1), 1-13. <https://doi.org/10.1016/j.system.2020.102402>
- Lindgren, E., & Muñoz, C. (2013). The influence of exposure, parents, and linguistic distance on young European learners' foreign language comprehension. *International Journal of Multilingualism*, 10(1), 105-29. <https://doi.org/10.1080/14790718.2012.679275>
- Long, M. H. (2020). Optimal input for language learning: Genuine, simplified, elaborated, or modified elaborated? *Language Teaching*, 53(2), 169-182. <https://doi.org/10.1017/S0261444819000466>
- Muñoz, C. (2020). Boys like games and girls like movies. Age and gender differences in out-of-school contact with English. *Revista Española de Lingüística Aplicada*, 33(1), 171-201. <https://doi.org/10.1075/resla.18042.mun>
- Muñoz, C. & Cadierno, T. (2021). How do differences in exposure affect English language learning? A comparison of teenagers in two learning environments. *Studies in Second Language Learning and Teaching*, 2, 185-212. <https://doi.org/10.14746/ssl.2021.11.2.2>
- Muñoz, C., Cadierno, T., & Casas, I. (2018). Different starting points for early English language learning: A comparative study of Danish and Spanish young learners. *Language Learning*, 68 (4), 1076-1109. <https://doi.org/10.1111/lang.12309>
- Murray, G. (2008). Pop culture and language learning: Learners' stories informing EFL. *Innovation in Language Learning and Teaching*, 2(1), 2-17. <https://doi.org/10.2167/illt018.0>
- Olsson, E. (2011). "Everything I read on the Internet is in English"- On the impact of extramural English on Swedish 16-year-old pupils' writing proficiency. (Licentiate's thesis), University of Gothenburg, Sweden.
- Paivio, A. (1986). *Mental representations: A dual coding approach*. Oxford University Press.
- Peters, E. (2018). The effect of out-of-school exposure to English language media on learners' vocabulary knowledge. *ITL – International Journal of Applied Linguistics*, 169(1), 142-167. <https://doi.org/10.1075/itl.00010.pet>



- Peterson, M. (2010). Massively multiplayer online role-playing games as arenas for second language learning. *Computer Assisted Language Learning*, 23(5), 429-439. <https://doi.org/10.1080/09588221.2010.520673>
- Peterson, M. (2012). Language learner interaction in a massively multiplayer online role-playing game. In H. Reinders (Ed.), *Digital games in language learning and teaching* (pp. 70-92). Palgrave Macmillan.
- Peterson, M. (2016). *Computer games and language learning*. Palgrave Macmillan.
- Rieder, A. (2003). Implicit and explicit learning in incidental vocabulary acquisition. *Views*, 12, 24-39
- Rodgers, M. P., & Webb, S. (2011). Narrow viewing: The vocabulary in related television programs. *Tesol Quarterly*, 45(4), 689-717. <https://doi.org/10.5054/tq.2011.268062>
- Scholz, K. (2017). Encouraging free play: Extramural digital game-based language learning as a complex adaptive system. *Calico Journal*, 34(1), 39-57. <https://10.1558/cj.29257>
- Sockett, G. (2012). The learner, the media and the community: How does learning take place in the other CALL triangle? *The EUROCALL Review* 20(1), 142-145. <https://doi.org/10.4995/eurocall.2012.16210>
- Sockett, G. (2014). *The Online Informal Learning of English*. Palgrave Macmillan.
- Sockett, G., & Kusyk, M. (2015). Online informal learning of English: Frequency effects in the uptake of chunks of language from participation in web-based activities. In T. Cadierno & S. W. Eskildsen (Eds.), *Usage-Based Perspectives on Second Language Learning* (pp. 153-177). Mouton de Gruyter.
- Sundqvist, P. (2009). *Extramural English matters: Out-of-school English and its impact on Swedish ninth graders' oral proficiency and vocabulary*. (PhD), Karlstad University, Karlstad
- Sundqvist, P., & Sylvén, L. K. (2014). Language-related computer use: Focus on young L2 English learners in Sweden. *ReCALL*, 26, 3-20. <https://doi.org/10.1017/S0958344013000232>
- Sundqvist, P., & Sylvén, L. K. (2016). *Extramural English in Teaching and Learning*. Palgrave Macmillan.
- Sundqvist, P., & Wikström, P. (2015). Out-of-school digital gameplay and in-school L2 English vocabulary outcomes. *System*, 51, 65-76. <https://doi.org/10.1016/j.system.2015.04.001>
- Sydorenko, T. (2010). Modality of input and vocabulary acquisition. *Language Learning & Technology*, 14 (2), 50-73. <http://hdl.handle.net/10125/44214>
- Sylvén, L. K., & Sundqvist, P. (2012). Gaming as extramural English L2 learning and L2 proficiency among young learners. *ReCALL*, 24(3), 302-321. <https://doi.org/10.1017/S095834401200016X>
- Toffoli, D., & Sockett, G. (2010). How non-specialist students of English practice informal learning using web 2.0 tools. *ASP*(58), 125-144. <https://doi.org/10.4000/asp.1851>
- Tomasello, M. (2003). *Constructing a language: A usage-based theory of language acquisition*. Harvard University Press.
- Tyler, A., Ortega, L, Uno, M. & Park H.I. (2018). *Usage-inspired L2 Instruction: Researched pedagogy*. John Benjamin.

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**APPENDIX**

Age:                      Gender:

In the following, please answer a number of questions about your use of English outside the classroom. It takes about 15 minutes to complete the form and the survey is confidential. This means that the names of the participants are only known by the research group, and that all data will be anonymised by replacing the names of the participants with numbers in connection with the data analysis.

1. Please tick the answer that approximately corresponds to the time you spend watching English movies / clips during a normal week (e.g. watching English movies, YouTube clips, tiktoks or similar, cartoons on TV, Netflix, HBO, the cinema, etc)

Less than ½ hour   
  ½ hour   
  1 h   
  2 h   
  3 h   
  4 h   
  5 h  
 6 h   
 More than 6 h   
 I don't do this

1b. Do you watch them...

with English subtitles   
  without English subtitles   
  with Spanish subtitles

1c. Which ones do you watch most? (e.g. watching English movies, YouTube clips, tiktok or similar, cartoons on TV, Netflix,HBO,cinema, etc).....  
 .....  
 .....  
 .....

2a. Please tick the answer that matches the time you spend approximately playing games in English in total during a regular week (e.g. on the computer, tablet, Ipad, or other electronic media: phone, Nintendo, Wii, PlayStation, etc.)

Less than ½ hour   
  ½ hour   
  1 h   
  2 h   
  3 h   
 4 h   
 5 h   
 6 h

More than 6 h   
 I don't do this

2b. Do you play those games...

with English speaking  with English text  with both English speaking and text  with English speaking and Spanish text

2c. Which one do you use most for playing games in English? (e.g. on the computer, tablet, iPad, or other electronic media: phone, Nintendo, Wii, PlayStation, etc.)

.....

.....

3a. Do you play English online computer games where you chat (text and / or speak) in English with others in the game?

Never  Infrequently  Sometimes  Often  Always

3b. If so, which computer games do you use most?.....

4a. Please tick the answer that approximately corresponds to the time you spend listening to English music during a regular week (e.g. YouTube, Spotify, CD 's, etc.)

Less than ½ hour  ½ hour  1 h  2 h  3 h  4 h  5 h  6 h

More than 6 h  I don't do this

4b. Which one do you use most? (e.g. YouTube, Spotify, CD 's, etc.).....

5a. Please tick the answer that approximately corresponds to the time you spend overall reading English (e.g. books, comics, magazines, online pages (online), lyrics, etc.) during a regular week?

Less than ½ hour  ½ hour  1 h  2 h  3 h  4 h  5 h

6 h

More than 6 h  I don't do this

5b. Which one do you use most? (e.g. books, comics, magazines, online pages (online), lyrics, etc.)?.....

6a. Please tick the answer that approximately corresponds to the time you spend speaking English during a normal week (e.g. on Skype, online, or with family, with friends, etc.)

Less than ½ hour  ½ hour  1 h  2 h  3 h  4 h  5 h

6 h  More than 6 h  I don't do this

6b Which one do you use most (e.g. on Skype, online, or with family, with friends, etc.).....

7a. Please tick the answer that approximately corresponds to the time you spend writing English (e.g. chat, stories, copying texts, emails, twitter, Facebook, Messenger, etc.) during a normal week:

- Less than ½ hour   
  ½ hour   
  1 h   
  2 h   
  3 h   
  4 h   
  5 h  
 6 h  
 More than 6 h   
 I don't do this

7b. Which one do you use most (e.g. chat, stories, copying texts, emails, twitter, Facebook, Messenger, etc.).....

8a. Please tick the answer that approximately corresponds to the time you spend on 'other' English activities during a week (e.g. to sing along to English songs, playing scrabble, etc. ):

- ½ hour   
  1 h   
  2 h   
  3 h   
  4 h   
  5 h   
  6 h   
 More than 6 h  
 I don't do this

8b. If so, which activities do you do most? (e.g. To sing along to English songs, playing scrabble, etc.).....