# Gaming Experiences in Argentinean Adult Gamers

# Experiencias en el Uso de Videojuegos en *Gamers* Argentinos Adultos

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This study aimed at analyzing gaming experiences in Argentinean gamers, studying their sociodemographic characteristics, and analyzing a gamer experience scale. Sample was non-probabilistic and composed of 201 Argentinean adults (over 18 years old) of the general population that played videogames. The majority were between 25 and 45 years old (M = 40.9 years; SD = 15.5; 55.2% female; 43.3% male; 1% non-binary; 0.5% another gender). Statistical analyzes included Pearson's r tests, Student's t tests, ANOVAs,  $\chi^2$ , Latent Class Analysis and classical (psychometric) test theory analysis. The observed sociodemographic characteristics replicated international reports. Two latent classes of gamers were identified: one composed mostly by male players, younger that 40 years, who preferred hardcore games and who were moderate or heavy players; the other one was mostly conformed by women, 40 years old or older, who preferred casual games and who were light or moderate players. The Gamer Experience Scale presented appropriate psychometric properties and was composed by 18 items grouped in two differentiated scales: Positive Experiences and Negative Experiences. It was observed that positive and negative experiences are not mutually exclusive but rather increase with video game use. Age and gender introduce differences in video game use and should be statistically controlled in any study carried out in gamer population. Additionally, the complete spectrum of videogame experiences should be always considered.

Keywords: videogames, gamers, positive experiences, negative experiences, gaming

El objetivo del estudio fue analizar las experiencias de uso de videojuegos en jugadores (gamers) argentinos estudiando sus características sociodemográficas y analizando una escala de experiencia gamer. La muestra no probabilística accidental estuvo constituida por 201 adultos argentinos mayores de 18 años de población general que utilizaban videojuegos. La mayoría tenía una edad comprendida entre los 25 y 45 años (M = 40.9 años; DE = 15,5; 55,2% mujer; 43,3% varón; 1% no binario; 0,5% otro género). Los análisis estadísticos incluyeron pruebas r de Pearson, t de Student, ANOVAs,  $\chi^2$ , Análisis de Clases Latentes y análisis de psicometría clásica. Las características sociodemográficas observadas replicaron las reportadas en otros países. Se identificaron dos clases latentes de gamers: una constituida mayormente por varones, menores de 40 años, que preferían hardcore games y que eran jugadores moderados o intensos; y otra, conformada en mayor medida por mujeres, mayores de 40 años, que preferían los videojuegos casuales y que eran jugadores típicos o moderados. La Escala de Experiencia Gamer presentó apropiadas propiedades psicométricas y quedó conformada por 18 ítems que se agruparon en dos escalas: Experiencias Positivas y Experiencias Negativas. Se observó que las experiencias positivas y negativas no son mutuamente excluyentes, sino que aumentan con el incremento del uso de videojuegos. La edad y el género introducen diferencias en el uso de videojuegos y deberían ser controladas estadísticamente en cualquier análisis realizado en población gamer. Además, siempre debería considerarse todo el espectro de experiencias de usos de videojuegos.

Palabras clave: videojuegos, gamers, experiencias positivas, experiencias negativas, uso de videojuegos

Since their first appeared in the 1950s, the use of video games has increased exponentially worldwide, estimating that more than 3 billion people in the world (approximately 35-40% of the population) use video games. The industry revenue estimates represent US \$365 billion (DFC Intelligence, 2023; Gilbert, 2023). In Argentina, this trend is replicated. Local data reports that one third of the population plays video games, the size of the industry is valued at US \$91 million and revenue estimates amount to US \$497 million (de la Iglesia & Bruno, 2023; Sistema de Información Cultural de la Argentina, 2023; Statista, 2023).

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During the COVID-19 pandemic, the increment of video games use broke world records (an increase of over 65%) and the industry was quick to adapt to address the demand by adjusting their products to the restrictions due to confinement (Claesdotter-Knutsson et al., 2022; Ortiz et al., 2020; Pallavicini et al., 2022). These statistics suggest that video games are an aspect of everyday life for almost half of the population.

## Who Plays Video Games? How Do They Play? What Do They Play?

Despite the common misconception that *gamers* are mostly adolescent boys, several studies have debunked this stereotype (Kowert et al., 2014; Paaßen et al., 2017; Shaw, 2012). The sociodemographic characteristics of *gamers* are quite diverse (Yee, 2006a). In fact, Kaye (2019) stated that given the current massive use of video games it is very difficult to describe the demographic characteristics of gamers.

It is possible to differentiate gamers in those who play *core* or *hardcore games* from gamers who play *casual* video games. Hardcore games include video games that are associated with "gamer identity", related to a way of living in which individuals state that play certain genre of video games (mostly, *shooters*, fighting, action/adventure, survival or strategy games) is a personal characteristic and describe it as part of their way of being (De Grove et al., 2015). These gamers are differentiated from casual gamers, who play video games in a more 'superficial' way, are less engaged in gamer culture, do not identify themselves as gamers or do not feel that playing video games (e.g., puzzles, word games) is a central feature of their lives. This differentiation between *hardcore* and casual gamers is fundamental in the analysis of the gamer population (Kaye, 2019). Indeed, De Grove et al. (2015), in a latent class analysis, reported finding two groups of gamers that matched this differentiation.

Hours of play, is an aspect commonly described in gamers and often used to assess the type of player and even to study the likelihood of problematic gaming. An accepted classification is that of Przybylski (2014), who proposed cut-offs values of: less than one hour per day, between one and three hours and more than three hours per day, classifying gamers as light, moderate and heavy. When studying the general population it is observed that the percentage of heavy gamers does not exceed 10-15% (de la Iglesia, 2021; Przybylski, 2014). When analyzing specific gaming population, the average time spent is estimated at 19-22 hours per week (e.g., Griffiths, 2003, 2004a, 2004b; Poels et al., 2012; Yee, 2006a). Furthermore, De Grove et al. (2015) indicated that those who identify as hardcore gamers tend to play more frequently.

In relation to socio-demographic variables, the average age of gamers is estimated at 30 years (Griffiths et al., 2003; Williams et al., 2008; Yee, 2006a), which is far from the stereotypical teenage gamer. The latest report from the Entertainment Software Association (2022) specified that the average age is 33. The range, however, is very wide and covers several generations (Cichirillo, 2011). Regarding gender, several studies have reported a preponderance of male gamers (approximately 80%; Griffiths et al., 2003; Kowert et al., 2014; Williams et al., 2008; Yee, 2006a). However, this seems to be the case only when studying the use of hardcore games (Eklund, 2016; Vermeulen et al., 2011). When analyzing all video game genres, gender distribution is more even (approximately 40% female; Paaßen et al., 2017). Furthermore, it has been pointed out that age and gender are variables that should be statistically controlled for when studying gamers, as they have a high incidence on usage and can significantly modify the relationships found between other variables (Kowert et al., 2014). When age and gender data are analyzed jointly, statistics suggest that, nowadays, the proportion of adult females playing video games has surpassed that of adolescent males and that, in general, there is an overall trend towards a greater involvement of females in the world of video games (Van Bauwel, 2020; Zwiezen, 2023).

Regarding gender differences in the number of hours of play, there are mixed results. In general, women are found to play less than men (Terlecki et al., 2011; Vermeulen et al., 2011). However, it has been reported that, in self-reports, men tend to underestimate their hours of use by one hour and women by three hours. And, when studies use self-reports, in general, men are found to play more hours than women and, when using objective data obtained directly from video games, women are found to play more (Williams et al., 2009). In Argentina, the latest report of the Cultural Information System of Argentina (2023), no differences were observed in the number of hours played between men and women.

### **Gaming Experiences**

Evidence suggest that gaming experiences can be differentiated as negative or problematic and positive or healthy (Charlton & Danforth, 2007, 2010; Lafrenière et al., 2009; Snodgrass et al., 2017). This classification is still under debate and no consensus has been reached yet. However, we can say that in negative gaming experiences involve experiencing obsessions, compulsions, sensation seeking, seeking personal validation and increased self-esteem, stress, impulsivity and boredom, and preoccupation related to video game use (e.g., Beard & Wickham, 2016; Chiu et al., 2004; Hu et al., 2017; Przybylski et al., 2009). Positive or healthy gaming experiences, on the other hand, include achievement, gratification, satisfaction, enjoyment and positive affect, *flow*, immersion, and positive interactions with other players (e.g., Huang et al., 2015; Lafrenière et al., 2009; Park & Lee, 2012; Przybylski et al., 2009; Sampat & Krishnamoorthy, 2016; Wang et al., 2008). These two categories have been also named as addiction versus engagement (Charlton & Danforth, 2007, 2010), obsessive versus harmonious passion (Lafrenière et al., 2009) and negative versus positive consequences (Snodgrass et al., 2017). Some include a third variable that could be healthy or problematic, according to each individual: immersion (Yee, 2006a, 2006b, 2006c). All of these aspects can be understood as *gaming experiences* (Snodgrass et al., 2017).

An anthropological study by Snodgrass et al. (2017) sought to study gaming experiences by a cultural consensus approach combining both theoretical and ethnographically derived elements. From the analysis of observations, interviews and surveys, the authors designed a measurement of gaming experiences that includes three scales: Positive Consequences, Negative Consequences and Involvement. Positive consequences include feelings of accomplishment, social experiences and experiencing stress relief. Negative consequences, on the other hand, involved compulsive and extensive gaming, avoidance of the real world and over-involvement in gaming. As a result of their research they highlighted about the importance of studying gamer population using ethnography methodologies and avoid trying to fit gaming behavior to theories or diagnoses corresponding to other phenomena (e.g. substance abuse or gambling). The major strength of this measurement is that it is derived from what gamers think and say. However, there is no psychometric evidence of the validity and reliability of its scores. In addition, it is quite long (57 items) and in the case of wanting to include it in an research protocol along with other measures this would increment response time and possibly decrease attention levels (Kemper et al., 2019; Robins et al., 2001).

Williams et al. (2008) have pointed out that the study of gamers' demographics would provide empirical data to move forward in this area of research which is heavily filled with stereotypes and preconceptions about gamers. A latent class analysis to identify homogenous subgroups of gamers could address this need. In addition, greater clarity regarding how to differentiate gaming experiences (both negative and positive) would provide a better description of the phenomenon and provide a basis to studying its associations with healthy or pathological psychological. A psychometric measure derived from a dimensional analysis, such as factor analysis, could serve this need.

Therefore, the aim of this research was to: (a) Describe a sample of Argentine gamers regarding their basic sociodemographic characteristics and video game use, (b) Identify latent classes of gamers that combine sociodemographic and video game use aspects, (c) Obtain a psychometrically sound and short measure of gaming experiences, and to (d) Study the differences in gaming experiences regarding video game use, sociodemographic characteristics and group of gamers that combine both aspects.

#### Method

# **Participants**

Sample consisted of 201 Argentinean gamers from the general population. Mean age was 40.9 years (SD = 15.5). 55.2% said to be female, 43.3% male, 1% non-binary and 0.5% another gender. 32.3% resided in the Buenos Aires City, 40.3% in the province of Buenos Aires and the remaining 27.4% in different provinces of Argentina. Most were married or living with their partner (43.3%), 30.3% were single, 11.4% were dating someone, 10.9% were separated or divorced and 4% were widows. As for their level of education, 53.7% had not finished college, were college students or had a lower educational level, and 46.3% had a college degree or an even higher educational level. The majority (60.7%) reported a middle socio-economic status (SES), 29.9% low/lower-middle SES and 9.5% an upper/upper-middle SES. Regarding video game use, 46.5% said they used a computer as a gaming device, 29.3% a console and 24.2% a mobile. On average they played 2.42

hours per day (SD = 2.18) and, according to Przybylski's (2014) classification, 37.8% were light gamers (less than 1 hour per day), 42.3% were moderate gamers (between 1 and 3 hours per day) and 19.9% were heavy gamers (more than 3 hours per day of gaming). Also, 38.3% indicated that their favorite video game was a hardcore game (62.7% male) and the remaining 61.8% said that their favorite video game was a casual game (80.6% female).

#### Measures

#### Socio-demographic and Videogame Use Survey

Participants were asked to report basic socio-demographic data (age, gender, place of residence, marital status, educational level and socio-economic status) and answer questions about their video game use (hours played, game and genre preference and devices used).

#### Online Gaming Survey (Snodgrass et al., 2017)

This instrument was originally designed to measure positive (e.g. "I enjoy pushing my skills to the limits") and negative (e.g. "I feel frustrated and disappointed when I don't play well") experiences when playing online video games and the level of immersion in their use (e.g. "I feel that playing video games is a way of life and not just recreation"). It has 57 items that are answered on a four-point Likert scale of degree of agreement. In its original version, the instrument was studied for content and face validity (detailed in the Introduction). Generating a shorter and local version was part of the objectives of this study: the Gamer Experience Scale.

First, permission to use and study the scale was obtained from the author. Then, items were translated into Spanish using a back-translation method. In addition, item content was modified as to cover the use of video games in general and not just refer to online video games. Also Likert scale was extended to six options, asking the respondent to indicate how much each of the phrases represented him/her (0 = Does not represent me at all to 5 = Represents me completely), to better capture the variability. Comprehension was then tested with a pilot group of five video game users. Details of its psychometric properties are given in the Results section.

# Procedure

This research was non-experimental cross-sectional and data were collected in a non-probabilistically through an online survey that took approximately 30 minutes to answer. Participants had to meet the following inclusion criteria: (1) reside in Argentina, (2) be 18 years of age or older, and (3) play a video game at least once a month. In addition, all participants had given their informed consent of participation in the study. Informed consent included information about the objectives of the study, the possibility of refusing or discontinuing participation at any time, and that all information would be handled confidentially. There were no incentives for participation. All procedures respected the ethical guidelines and standards of the 1964 Helsinki declaration and its subsequent amendments, and of the National Council for Scientific and Technical Research (CONICET). The project was evaluated and approved by the Ethics Committee of the Universidad de Palermo (Argentina).

#### **Data Analysis**

To analyse associations and differences regarding sociodemographic and video game use variables, Pearson's r, Student's t, one-factor ANOVAs, with Tukey post-hoc test, and  $\chi^2$  were calculated. In all cases the corresponding effect sizes (Cohen's d, Cramer's V) are reported. In addition, a Latent Class Analysis (LCA) was performed to study whether participants could be grouped according to the variables under study. The Aikake Information Criterion (AIC), the Bayesian Information Criterion (BIC) and the Entropy  $R^2$  were used to assess the parsimony and fit of the competing models. Their values are not interpreted according to cut-off scores, but by comparison with the values obtained in the other competing models. The AIC represents the fit of the proposed model to the data, considering the parsimony of the model; higher parsimony is estimated when its values are lower. As for the BIC, the lower its value, the better the fit of the model to the data, since this index represents a penalty related to the number of parameters included in the model. The  $R^2$  of Entropy represents the degree of accuracy in the classification, so higher values will indicate higher accuracy in that sense.

The Snodgrass' et al. (2017) scale was analyzed by diverse psychometric analyses. First, corrected homogeneity indices were calculated and items with values below 0.35 were eliminated (Zijlmans et al., 2019). Then, an Exploratory Factor Analysis was conducted using maximum likelihood and oblimin rotation to analyze the underlying dimensions of the instrument. For this purpose, and given that the items were answered on an ordinal scale, the polychoric correlation matrix was used. Sample adequacy was assessed using the Kaiser-Meyer-Olkin measure and Bartlett's test of sphericity. The two-factor structure obtained in the exploratory analysis was then confirmed by a Confirmatory Factor Analysis. Again, the polychoric matrix was used and the estimation method was diagonalised weighted least squares (DWLS), which is appropriate for this type of data. Because the same data sample was being analyzed and the amount of data was inappropriate for invariance or cross-validation procedures, as too small subgroups would be generated, a resampling of 1000 samples by *bootstrap* was used. The fit was assessed with various indices:  $\chi^2$ , the Comparative Fit Index (CFI), the Tucker Lewis Index (TLI), the Root of the Standardised Root Mean Square residual (SRMR) and the Root Mean Square Error of Approximation (RMSEA). CFI and TLI were expected to have values close to 1, ideally greater than 0.90 or 0.95, SRMR should be less than 0.05 and RMSEA, less than 0.08 (Schumacker & Lomax, 2016). Furthermore,  $\chi^2$  was not expected to be statistically significant, although this is usually significant in samples with n > 200. In this sense, the parsimony index  $\gamma^2/gl$  was also calculated. In addition, the internal consistency was estimated using Cronbach's alphas and Omegas. Software used for these analyzes were Jamovi version 2.2.5 (Jamovi, 2022) and R version 4.2.0 (R Foundation, 2022).

## Results

#### Description of argentinean gamers: sociodemographic characteristics and video game use

First, gamers in the sample are described regarding basic socio-demographic characteristics and video game use: age, gender, daily hours of gaming and game preference (hardcore/casual). In terms of gender, a statistically significant difference was found in daily hours of gaming, t(196) = 2.19, p = 0.029, d = 0.31, 95% IC [0.02, 0.59]. Males played more hours per day than females ( $M_V = 2.79$ ,  $DE_V = 2.23$ ,  $M_M = 2.12$ ,  $DE_M = 2.10$ ). Regarding the preferred type of video game, a statistically significant association was found,  $\chi^2$  (1, n = 173) = 33.7, p < 0.001, Cramer's V = .44. Cell analysis showed that there were more males playing hardcore games and females playing casual video games than expected values.

As for age, a statistically significant, negative and weak correlation was found with daily hours of gaming, r = -0.27, p < 0.001. In addition, those who reported preferring hardcore games were significantly younger than those who reported preferring casual video games, t(173) = -5.52, p < 0.001, ( $M_{\text{HG}} = 33.4$ ;  $DE_{\text{HG}} = 12.4$ ;  $M_{\text{CG}} = 45.9$ ;  $DE_{\text{CG}} = 15.8$ ), d = -0.85 95% IC [-1.19, -0.51].

Finally, statistically significant differences were also found in daily gaming hours and preferred game type, t(173) = 2.98, p = 0.003, d = 0.46 95% IC [0.14, 0.77]. Those who played hardcore games played significantly more hours per day than those who preferred casual games ( $M_{\rm HG} = 3.10$ ;  $DE_{\rm HG} = 2.40$ ;  $M_{\rm CG} = 2.08$ ;  $DE_{\rm CG} = 2.09$ ).

# Latent Class Analysis

Given that, as expected, the analyses conducted showed that socio-demographic characteristics and video game use were related, a latent class analysis was conducted to identify homogeneous groups according to these characteristics: age (categorized into under 40 years old and 40 years old or older), gender (male/female categories were analyzed exclusively given that the other categories did not constitute a large enough n to be statistically viable for this type of analysis), daily hours of gaming (categorized according to the criteria of Przybylski, 2014) and preference for hardcore games or casual video games. After comparing model regarding their AIC, BIC and Entropy  $R^2$  values, it was concluded that the two-class model was the one with the best fit and parsimony (see Table 1), given that the AIC and BIC values were lower than those of the other models and the Entropy  $R^2$  was higher than that of the immediately more complex model (three classes).

Model	AIC	BIC	$R^2$ of entropy
Two classes	1154	1190	0,62
Three classes	1161	1217	0,60
Four classes	1169	1245	0,71
Five classes	1178	1274	0,75

Table	1				
Latent	Class .	Analysis:	Model	Comparis	son

The probability of belonging to class 1 was 41.6% and that of belonging to class 2 was 58.4%. When analyzing the characteristics of each class, it was found that class 1 consisted mostly of males under 40 years old who were moderate or heavy gamers and preferred hardcore games. Class 2 was mostly made up of women over 40 who were light or moderate gamers and who preferred casual video games. Table 2 shows the distribution of these characteristics by class and  $\chi^2$  shows that the variables are not independent in any of the cases (p < 0.001).

#### Table 2

Observed Frequencies for Sociodemographic Characteristics and Video Game Use in Latent Classes of Gamers

Variable	Class 1	Class 2	$\chi^2(gl, n)$	р	V for Cramer
Gender			83,7(1, 198)	< 0,001	
Male	68	19			0,65
Female	15	96			
Age			58,6(1, 201)	< 0,001	
Under 40 years old	72	35			0,54
40 years and over	13	81			
Player type			25,5(2, 201)	< 0,001	
Light	20	56			0.25
Moderate	35	50			0,55
Heavy	30	10			
Game of preference			112,0(1, 175)	< 0,001	
Hardcore	62	5			0,80
Casual	12	96			

Note: In all cases at least 80% of the cells had an expected frequency greater than 5.

# **Psychometric Properties of the Gamer Experience Scale**

The psychometric properties of the measure of gaming experiences were studied in order to generate a local and shorter version of the Snodgrass et al. (2017) scale. Four items presented values below 0.35 in the total-corrected homogeneity index, so they were eliminated. In the exploratory factor analysis, both the parallel analysis and the sedimentation plot suggested that a two-factor structure was appropriate, so two factors were extracted. An 18-item two-factor structure was appropriate, KMO = 0.9, Bartlett's test(17) = 452.7, p < 0.001. It explained 59% of the variance and all items had factor loadings > 0.45 on a single factor (see Table 3). Factor 1 items referred to positive gaming experiences (strengthening bonds with others,

increasing skills, self-improvement, gamer identity as a way of life), so this factor was called Positive Experiences. Factor 2 items addressed negative gaming experiences (loss of control, social isolation, obsession, negative affectivity, withdrawal, problems in other areas of personal life and burnout), so it was called Negative Experiences. When its internal consistency was studied, it was verified that both factors presented adequate Cronbach's alpha and Omega values (see Table 3). The association between the Positive Experiences scale and the Negative Experiences scale was positive and strong, r = 0.51, p < 0.001.

When running a confirmatory factor analysis, all fit indices, with the exception of  $\chi^2$ , showed an adequate model fit:  $\chi^2$  (134, n =) = 232.52,  $\chi^2/gl =$  1.73, p < 0.001, CFI = 0.991, TLI = 0.989, SRMR = 0.079, RMSEA = 0.060 (90% IC = 0.047, 0.073). Item regression weights were all statistically significant (p < 0.001) and greater than 0.40.

Item	F1	F2
Item 43	0,89	-0,06
Item 18	0,78	-0,06
Item 12	0,74	-0,11
Item 55	0,74	0,21
Item 32	0,73	0,09
Item 34	0,72	0,24
Item 45	0,71	0,15
Item 08	0,71	-0,09
Item 06	0,68	-0,08
Item 38	-0,20	0,91
Item 28	-0,01	0,80
Item 15	0,02	0,79
Item 26	0,18	0,76
Item 40	0,04	0,72
Item 29	0,24	0,65
Item 39	0,22	0,63
Item 13	0,02	0,57
Item 05	0,09	0,47
Variance %	31	28
Cronbach's alpha	0,84	0,89
Omega	0,93	0,89

**Table 3**Bifactor Structure of the Gamer Experience Scale

#### **Gamers' Classes and Gaming Experiences**

Regarding the relationships between positive and negative gaming experiences with different variables of video game use, statistically significant and strong correlations were initially found between hours of daily gaming and positive experiences, r = 0.46, p < 0.001, and with negative experiences, r = 0.53, p < 0.001. This was also found when categorizing gamers according to Przybylski's (2014) criteria, as heavy gamers had significantly higher levels of both positive and negative experiences compared to moderate gamers, and moderate gamers had significantly higher levels of both types of experiences compared to light gamers (see Table 4). That is, positive and negative experiences were higher according to the gamer type.

Differences were also studied according to game preference. Those who played hardcore games had both more positive, t(173) = 7.37, p < 0.001, d = 1.15, 95% IC [0.78, 1.50] ( $M_{\text{HG}} = 21.93$ ;  $DE_{\text{HG}} = 10.1$ ;  $M_{\text{CG}} = 11.16$ ;  $DE_{\text{CG}} = 8.97$ ), and negative, t(173) = 3.80, p < 0.001, d = 0.59, 95% IC [0.26, 0.90] ( $M_{\text{HG}} = 8.13$ ;  $DE_{\text{HG}} = 7.74$ ;  $M_{\text{CG}} = 4.31$ ;  $DE_{\text{CG}} = 5.55$ ), gaming experiences.

Functionage	F(gl)	η <sup>2</sup> -	М			DE			
Experiences			Light	Moderate	Heavy	Light	Moderate	Heavy	
Positive	25,5(2)***	0,20	9,89A	15,86в	23,15c	8,67	9,18	11,90	
Negative	20,2(2)***	0,17	2,87A	$6,14_{\rm B}$	10,57c	3,67	6,10	9,58	

**Table 4**Differences in Positive and Negative Gamer Experiences by Gamer Type

*Note.* Means (*M*) with different subindex differ at the p < 0.05 level according to Tukey's post-hoc test. \*\*\* p < 0.001.

Finally, associations with age and gender were studied. Moderate and statistically significant negative correlations with age were found for both positive, r = -0.45, p < .001, and negative, r = -0.41, p < .001, gaming experiences. In addition, statistically significant differences were found by gender (p < .001). Males had higher levels of both positive, t(196) = 6.48, d = 0.92, 95% IC [0.61, 1.24], ( $M_V = 20.20$ ,  $SD_V = 10.8$ ,  $M_M = 11.10$ ,  $SD_M = 8.89$ ), and negative, t(197) = 4.43, d = 0.63, 95% CI [0.33, 0.92], ( $M_V = 8.09$ ;  $SD_V = 7.74$ ;  $M_M = 3.94$ ;  $DE_M = 5.44$ ) gaming experiences.

Finally, differences in gaming experiences were studied according to the latent classes of gamers identified in the previous analysis. Statistically significant differences were found for both positive, t(199) = 9.06, p < 0.001, d = 1.29, 95% CI [0.95, 1.63], and negative, t(199) = 5.42, p < 0.001, d = 0.77, 95% CI [0.46, 1.08] gaming experiences. Class 1 individuals (mostly male, under 40, who preferred hardcore games and were moderate/heavy gamers) had more positive ( $M_{C1} = 21.80$ ;  $SD_{C1} = 10.2$ ;  $M_{C2} = 10.11$ ;  $SD_{C2} = 8.07$ ) and negative ( $M_{C1} = 8.64$ ;  $SD_{C1} = 8.00$ ;  $M_{C2} = 3.70$ ;  $SD_{C2} = 4.86$ ) gaming experiences.

# Discussion

The main objective of this study was to describe gaming experiences in Argentine gamers and to study their associations with sociodemographic characteristics and video game use. Regarding the gamers' sociodemographic characteristics, average age of the sample was 10 years older than usually reported (Griffiths et al., 2003; Williams et al., 2008; Yee, 2006a). This may be due to the fact that one of the inclusion criteria for this research was to be over 18 years old, so no teenagers were included in the analysis and this may have elevated the average. However, if the latest report from the Entertainment Software Association (2022) is considered, the difference is slightly smaller. In terms of gender distribution, the current trend of an even distribution between males and females (Paaßen et al., 2017) was verified when all types of video games were considered together.

As for socio-demographic characteristics and video game use, it was found that males play more hours per day, which is consistent with research in which this is assessed by self-report (Terlecki et al., 2011; Vermeulen et al., 2011; Williams et al., 2009). In addition, as the literature indicated (Eklund, 2016; Griffiths et al., 2003; Kowert et al., 2014; Vermeulen et al., 2011; Williams et al., 2008; Yee, 2006a), more male gamers played hardcore games and more female gamers played casual video games.

In terms of age, it was found that the older the age, the fewer hours of daily use, and that those who played hardcore games were younger. This is consistent with the descriptions of De Grove et al. (2015), who noted that younger people tend to identify themselves as hardcore gamers and that age and frequency of gaming show a reverse association. Furthermore, as reported by De Grove et al. (2015), this study also found that those who preferred hardcore games played more hours per day.

The preceding analyses replicated the caveat that sociodemographic characteristics and video game use are not independent variables and that age and gender should not be considered in isolation when studying gamers (Kowert et al., 2014). These variables were then studied together and two latent classes were found: one comprised mostly of males under 40 who were moderate or heavy gamers and preferred hardcore games; and the other, comprised mostly of females over 40, who fell into the categories of light/moderate gamers and preferred casual video games. These findings echo the trend reported by Pulliam-Moore (2014), who noted the emergence of an identifiable group of gamers composed of adult women, and furthermore, it coincides with the differentiation between casual and hardcore gamers by De Grove et al. (2015).

In terms of gaming experiences, the analysis of the Snodgrass et al. (2017) scale showed a clear differentiation between negative and positive experiences. As expected, according to the theoretical and empirical background (Beard & Wickham, 2016; Charlton & Danforth, 2007, 2010; Chiu et al., 2004; Hu et al., 2017; Lafrenière et al., 2009; Przybylski et al., 2009; Snodgrass et al, 2017), negative experiences included elements encompassing a sense of loss of control, social isolation, obsession, negative affectivity, withdrawal, problems in other areas of personal life and burnout, and positive experiences included the possibility of strengthening bonds with others and increasing one's skills, the possibility of self-improvement and gamer identity as a way of life. Elements excluded cover items reiterative of the aforementioned aspects and some related to the relations between players (which only applies to video games in which there can be interaction with others playeres). In the case of the items that originally belonged to the Involvement scale, some of them loaded into the positive experiences factor (e.g., "I feel that playing video games is a way of life and not just recreation") and others into the negative experiences factor (e.g., "I continue playing even if I feel tired"). It is clear that these items have both positive and negative connotations in their phrasing and it makes sense to associate them with items originally formulated to measure those aspects. From this it can be concluded that involvement seems to be a bipolar dimension with aspects that are experienced as pleasant experiences and others that are suffered. The dimensions found here support the hypothesis that gaming experiences can be differentiated between positive and negative (Charlton & Danforth, 2007, 2010; Lafrenière et al., 2009; Snodgrass et al., 2017) and does not replicate the idea that involvement should be rated as a third dimension independent of the other two.

It should be noted that background research (Snodgrass et al., 2017; Yee, 2006a), from which the thirddimension proposal comes from, are ethnographic in nature and the studies conducted here are of a psychometric type. It is likely that the difference in the findings is due to the different methodologies. The three-dimensional approach does not appear to be replicable when using this type of analysis. Aspects of involvement, however, were distributed into those experienced as pleasant or unpleasant. The 18-item Gamer Experience Scale (see Appendix) studied here -derived from the Online Gaming Survey designed by Snodgrass et al. (2017) through ethnography- proposes to assess gaming experience by means of two dimensions: positive and negative gaming experiences. The psychometric analyses conducted on this shorter measure provided evidence of construct validity and internal consistency that are in line with international standards (Cohen et al., 2017; International Test Commission, 2017; Muñiz et al., 2013).

Then, when analyzing gaming experiences regarding sociodemographic characteristics, a positive association between daily hours of gaming and positive and negative experiences was observed. This was also observed when classifying gamers into light, moderate and heavy gamers: those who played the most had more positive and negative experiences. The same was true for the preferred type of game, with those who preferred hardcore games reporting more positive and negative experiences. As for the age and gender, the association with age was inverse and males had higher presence of both types of gaming experiences. Since there is still no tangible consensus on the operationalization of gaming experiences, comparison with empirical antecedents can be complex. From the mentioned background research, two specific comparisons can be made. One with a finding by Przybylski et al. (2009), who found an inverse association between age and the presence of obsessive passion (hypothetically related to what are here termed as negative experiences), and another with the findings of Charlton and Danforth (2007), who reported that those with behaviors classified as "addictive" (which could be thought of as negative experiences) played more hours per week. When these variables were studied together using the latent classes isolated in the previous analysis and given that it was evident that they were not independent of each other, it was verified that those belonging to class 1 presented higher levels of both types gaming experiences. In this class, everything previously mentioned is replicated. According to what has been reported, it can be concluded that negative and positive gaming experiences are related to a specific gamer profile that, in general, is male, under 40 years old, plays at least one hour a day (moderate/heavy gamers) and prefers hardcore games.

As limitations of the study, it should be noted that this research was correlational and cross-sectional, so causal relations between the variables cannot be interpreted. For reasons of feasibility, variables that could be related to or that could affect the variables assessed here (e.g., social desirability) were excluded. Furthermore, sampling was non-randomized, so the generalizability to the target population is limited. However, similar results have been found that replicate most of the characteristics of the gamer population reported in other research. This may account for a trend towards accumulating empirical evidence in this sense.

#### DE LA IGLESIA

Future research should further investigate the study of gaming experiences with other variables of interest, such as personality, mental health or in-game behaviors. The identification of variables that contribute to the increase or decrease of positive or negative gaming experiences is also an aspect of interest to be addressed. In addition, it would be relevant to study hours of gaming and other gaming behaviors directly from what is collected on servers or devices and not through self-reporting as to overcome the limitation of over- or under-reporting of some aspects linked to video game use.

As a general conclusion, it can be noted that the Argentinean gamer population seems to replicate characteristics reported in studies carried out in other countries. Also, gaming experiences were differentiated between positive and negative experiences, that they increase with hours of use and that they are not mutually exclusive. In fact, they occur simultaneously. That is, an increment of use (in terms of daily hours) increases the entire gaming experience, both the positive and negative aspects. The idea that an increament of the video game use is related to an increased probability of problematic gaming (e.g. Kowert et al., 2014) may not be erroneous, but it omits the fact that that increment is also related to an increment in healthier or positive experiences. Furthermore, involvement seems to be valued as positive or negative, and not differentiated as an isolated dimension. Finally, this study provides greater evidence of the need to statistically control age, gender, hours of play, and game preference when studying the gamer population.

#### References

- Beard, C. L. & Wickham, R. E. (2016). Gaming-contingent self-worth, gaming motivation, and Internet gaming disorder. Computers in Human Behavior, 61, 507-515. <u>https://doi.org/10.1016/j.chb.2016.03.046</u>
- Claesdotter-Knutsson, E., André, F. & Håkansson, A. (2022). Gaming activity and possible changes in gaming behavior among young people during the COVID-19 pandemic: cross-sectional online survey study. JMIR Serious Games, 10(1), Article e33059. <u>https://doi.org/10.2196/33059</u>
- Charlton, J. P. & Danforth, I. D. W. (2007). Distinguishing addiction and high engagement in the context of online game playing. Computers in Human Behavior, 23(3), 1531-1548. <u>https://doi.org/10.1016/j.chb.2005.07.002</u>
- Charlton, J. P. & Danforth, I. D. W. (2010). Validating the distinction between computer addiction and engagement: Online game playing and personality. *Behaviour & Information Technology*, 29(6), 601-613. <u>https://doi.org/10.1080/01449290903401978</u>
- Chiu, S-I., Lee, J.-Z. & Huang, D.-H. (2004). Video game addiction in children and teenagers in Taiwan. *CyberPsychology & Behavior*, 7(5), 571-581. <u>https://doi.org/10.1089/cpb.2004.7.571</u>
- Cicchirillo, V. (2011). Online gaming: Demographics, motivations, and information processing. En M. S. Eastin, T. Daugherty & N. M. Burns (Eds.), Handbook of research on digital media and advertising: User generated content consumption (pp. 456-479). Information Science Reference. https://doi.org/10.4018/978-1-60566-792-8.ch023
- Cohen, R. J., Swerdlik, M. E. & Sturman, E. D. (2017). Psychological testing and assessment: An introduction to tests and measurement (9na ed.). McGraw-Hill.
- De Grove, F., Courtois, C. & Van Looy, J. (2015). How to be a gamer! Exploring personal and social indicators of gamer identity. *Journal of Computer-Mediated Communication*, 20(3), 346-361. https://doi.org/10.1111/jcc4.12114
- de la Iglesia, G. (24 a 26 de noviembre de 2021). Uso de videojuegos y salud mental durante la pandemia COVID-19 [Presentación de póster]. XIII Congreso Internacional de Investigación y Práctica Profesional en Psicología, XXVIII Jornadas de Investigación, XVII Encuentro de Investigación en Psicología del MERCOSUR, III Encuentro de Investigación de Terapia Ocupacional y III Encuentro de Musicoterapia, Buenos Aires, Argentina.
- de la Iglesia, G. & Bruno, G. (2023). *Informe 2023*. Universidad Nacional de Rafaela, Observatorio de la Industria Argentina de Desarrollo de Videojuegos. <u>https://adva.vg/observatorio/</u>
- DFC Intelligence. (2023). Global video game consumer segmentation.

Eklund, L. (2016). Who are the casual gamers? Gender tropes and tokenism in game culture. En T. Leaver & M. Willson (Eds.), *Social, casual and mobile games: The changing gaming landscape* (pp. 15-29). Bloomsbury Academic. <u>https://doi.org/10.5040/9781501310591.ch-002</u>

- Entertainment Software Association (2022). Essential facts about the video game industry. Entertainment Software Association. https://www.theesa.com/resource/2022-essential-facts-about-the-video-game-industry/
- Gilbert, N. (2023). Number of gamers worldwide 2022/2023: Demographics, statistics, and predictions. *FinancesOnline*. Recuperado el 13 de diciembre de 2023 de https://financesonline.com/number-of-gamers-worldwide/
- Griffiths, M. D., Davies, M. N. O. & Chappell, D. (2003). Breaking the stereotype: The case of online gaming. *CyberPsychology & Behavior*, 6(1), 81-91. <u>https://doi.org/10.1089/109493103321167992</u>
- Griffiths, M. D., Davies, M. N. O. & Chappell, D. (2004a). Online computer gaming: A comparison of adolescent and adult gamers. Journal of Adolescence, 27(1), 87-96. <u>https://doi.org/10.1016/j.adolescence.2003.10.007</u>
- Griffiths, M. D., Davies, M. N. O. & Chappell, D. (2004b). Demographic factors and playing variables in online computer gaming. CyberPsychology & Behavior, 7(4), 479-487. <u>https://doi.org/10.1089/cpb.2004.7.479</u>
- Hu, J., Zhen, S., Yu, C., Zhang, Q. & Zhang, W., (2017). Sensation seeking and online gaming addiction in adolescents: A moderated mediation model of positive affective associations and impulsivity. Frontiers in Psychology, 8, article 699. <u>https://doi.org/10.3389/fpsyg.2017.00699</u>
- Huang, C. -L., Yang, S. C. & Chen, A. -S. (2015). Motivations and gratification in an online game: Relationships among players' self-esteem, self-concept, and interpersonal relationships. Social Behavior and Personality, 43(2), 193-204. <u>https://doi.org/10.2224/sbp.2015.43.2.193</u>
- International Test Commission. (2017). ITC guidelines for translating and adapting tests (second edition). https://www.intestcom.org/files/guideline\_test\_adaptation\_2ed.pdf
- Jamovi. (2022). Jamovi (Versión 2.2.5) [Software]. https://www.jamovi.org
- Kaye, L. K. (2019). Gaming classifications and player demographics. En A. Attrill-Smith, C. Fullwood, M. Keep & D. J. Kuss (Eds.), The Oxford handbook of cyberpsychology (pp. 609-623). Oxford University Press. <u>https://doi.org/10.1093/oxfordhb/9780198812746.013.1</u>

- Kemper, C. J., Trapp, S., Kathmann, N., Samuel, D. B. & Ziegler, M. (2019). Short versus long scales in clinical assessment: Exploring the trade-off between resources saved and psychometric quality lost using two measures of obsessive-compulsive symptoms. Assessment, 26(5), 767-782. <u>https://doi.org/10.1177/1073191118810057</u>
- Kowert, R., Festl, R. & Quandt, T. (2014). Unpopular, overweight, and socially inept: Reconsidering the stereotype of online gamers. Cyberpsychology, Behavior, and Social Networking, 17(3), 141–146. <u>https://doi.org/10.1089/cyber.2013.0118</u>
- Lafrenière, M. -A. K., Vallerand, R. J., Donahue, E. G. & Lavigne, G. L. (2009). On the costs and benefits of gaming: The role of passion. CyberPsychology & Behavior, 12(3), 285-290. <u>https://doi.org/10.1089/cpb.2008.0234</u>
- Muñiz, J., Elosua, P. & Hambleton, R. K. (2013). Directrices para la traducción y adaptación de los tests: segunda edición. Psicothema, 25(2), 151-157. <u>https://doi.org/10.7334/psicothema2013.24</u>
- Ortiz, L., Tillerias, H., Chimbo, C. & Toaza, V. (2020). Impacto en la industria de los videojuegos durante la pandemia por COVID-19. Athenea: Revista en Ciencias de la Ingeniería, 1(1), 5-13. <u>https://doi.org/10.47460/athenea.v1i1.1</u>
- Paaßen, B., Morgenroth, T. & Stratemeyer, M. (2017). What is a true gamer? The male gamer stereotype and the marginalization of women in video game culture. Sex Roles, 76(7-8), 421-435. <u>https://doi.org/10.1007/s11199-016-0678-y</u>
- Pallavicini, F., Pepe, A. & Mantovani, F. (2022). The effects of playing video games on stress, anxiety, depression, loneliness, and gaming disorder during the early stages of the COVID-19 pandemic: PRISMA systematic review. Cyberpsychology, Behavior, and Social Networking, 25(6), 334-354. <u>https://doi.org/10.1089/cyber.2021.0252</u>
- Park, J. & Lee, G. (2012). Associations between personality traits and experiential gratification in an online gaming context. Social Behavior and Personality, 40(5), 855-862. <u>https://doi.org/10.2224/sbp.2012.40.5.855</u>
- Poels, Y., Annema, J. H., Verstraete, M., Zaman, B. & De Grooff, D. (2012). Are you a gamer? a qualitative study on the parameters for categorizing casual and hardcore gamers. *IADIS International Journal on WWW/Internet*, 10(1), 1-16. <u>https://lirias.kuleuven.be/retrieve/203496</u>
- Przybylski, A. K. (2014). Electronic gaming and psychosocial adjustment. Pediatrics, 134(3), e716-e722. https://doi.org/10.1542/peds.2013-4021
- Przybylski, A. K., Weinstein, N., Ryan, R M. & Rigby, C. S. (2009). Having to versus wanting to play: Background and consequences of harmonious versus obsessive engagement in video games. *CyberPsychology & Behavior*, 12(5), 485-492. <u>https://doi.org/10.1089/cpb.2009.0083</u>
- Pulliam-Moore, C. (21 de agosto de 2014). Women significantly outnumber teenage boys in gamer demographics. PBS News. http://www.pbs.org/newshour/rundown/female-adults-oust-teenage-boys-largest-gaming-demographic/

R Foundation. (2022). The R project for statistical computing (Versión 4.2.0). [Software]. https://www.r-project.org/

- Robins, R. W., Hendin, H. M. & Trzesniewski, K. H. (2001). Measuring global self-esteem: Construct validation of a single-item measure and the Rosenberg Self-Esteem Scale. Personality and Social Psychology Bulletin, 27(2), 151-161. <u>https://doi.org/10.1177/0146167201272002</u>
- Sampat, B. & Krishnamoorthy, B. (2016). Motivations for Social Network Site (SNS) gaming: A uses and gratification & flow perspective. Journal of International Technology and Information Management, 25(3), 75-98. <u>https://doi.org/10.58729/1941-6679.1320</u>
- Schumacker, R. E. & Lomax, R. G. (2016). A beginner's guide to structural equation modeling (4ta ed.). Routledge. https://doi.org/10.4324/9781315749105
- Shaw, A. (2012). Do you identify as a gamer? Gender, race, sexuality, and gamer identity. New Media & Society, 14(1), 28-44. https://doi.org/10.1177/1461444811410394
- Sistema de Información Cultural de la Argentina (2023). Encuesta Nacional de Consumos Culturales 2013/2023. Ministerio de Cultura Argentina, Dirección de Planificación y Seguimiento de Gestión.

https://www.argentina.gob.ar/sites/default/files/mc\_dpysg\_sinca\_informe\_encc\_2013-2023.pdf

- Snodgrass, J. G., Dengah II, H. J. F., Lacy, M. G., Bagwell, A., Van Oostenburg, M. & Lende, D. (2017). Online gaming involvement and its positive and negative consequences: A cognitive anthropological "cultural consensus" approach to psychiatric measurement and assessment. Computers in Human Behavior, 66, 291-302. <u>https://doi.org/10.1016/j.chb.2016.09.025</u>
- Statista (2023). Video Games Argentina. https://www.statista.com/outlook/dmo/digital-media/video-games/argentina
- Terlecki, M., Brown, J., Harner-Steciw, L., Irvin-Hannum, J., Marchetto-Ryan, N., Ruhl, L. & Wiggins, J. (2011). Sex differences and similarities in video game experience, preferences, and self-efficacy: Implications for the gaming industry. *Current Psychology*, 30(1), 22-33. <u>https://doi.org/10.1007/s12144-010-9095-5</u>
- Van Bauwel, S. (2020). Women gamers. En K. Ross (Ed.), The international encyclopedia of gender, media, and communication (Vol. 3, pp. 1519-1523). Wiley. <u>https://doi.org/10.1002/9781119429128.iegmc046</u>
- Vermeulen, L., Van Looy, J., De Grove, F. & Courtois, C. (2011). You are what you play? A quantitative study into game design preferences across gender and their interaction with gaming habits. En DiGRA '11 - Proceedings of the 2011 DiGRA International Conference: Think design play (Vol. 6, Chapter 62). DiGRA/Utrecht School of the Arts. <u>http://www.digra.org/wpcontent/uploads/digital-library/11313.31106.pdf</u>
- Wang, C. K. J., Khoo, A., Liu, W. C. & Divaharan, S. (2008). Passion and intrinsic motivation in digital gaming. CyberPsychology & Behavior, 11(1), 39-45. <u>https://doi.org/10.1089/cpb.2007.0004</u>
- Williams, D., Consalvo, M., Caplan, S. & Yee, N. (2009). Looking for gender: Gender roles and behaviors among online gamers. Journal of Communication, 59(4), 700-725. <u>https://doi.org/10.1111/j.1460-2466.2009.01453.x</u>
- Williams, D., Yee. N. & Caplan, S. E. (2008). Who plays, how much, and why? Debunking the stereotypical gamer profile. Journal of Computer-Mediated Communication, 13(4), 993-1018. <u>https://doi.org/10.1111/j.1083-6101.2008.00428.x</u>
- Yee, N. (2006a). The demographics, motivations, and derived experiences of users of massively multi-user online graphical environments. Presence: Teleoperators and Virtual Environments, 15(3), 309-329. <u>https://doi.org/10.1162/pres.15.3.309</u>
- Yee, N. (2006b). Motivations for play in online games. CyberPsychology & Behavior, 9(6), 772-775. https://doi.org/10.1089/cpb.2006.9.772
- Yee, N. (2006c). The psychology of massively multi-user online role-playing games: Motivations, emotional investment, relationships and problematic usage. En R. Schroeder & A. -S. Axelsson (Eds.), Avatars at work and play: Collaboration and Interaction in Shared Virtual Environments (pp. 187-207). Springer Link. <u>https://doi.org/10.1007/1-4020-3898-4\_9</u>
- Zijlmans, E. A. O., Tijmstra, J., van der Ark, L. A. & Sijtsma, K. (2019). Item-score reliability as a selection tool in test construction. Frontiers in Psychology, 9, Artículo 2298. <u>https://doi.org/10.3389/fpsyg.2018.02298</u>
- Zwiezen, Z. (9 de junio de 2023). Data shows most switch owners are women, gamers react poorly. *Kotaku*. <u>https://kotaku.com/half-gamers-women-switch-ps5-xbox-pc-owners-girls-stats-1850524629</u>

# Appendix

# ESCALA DE EXPERIENCIA GAMER

(de la Iglesia, 2024)

Usa la siguiente escala para indicar que tanto representan estos ítems tu uso de videojuegos en el último año (12 meses)			ME REPRESENTA <b>MUY POCO</b>	ME REPRESENTA <b>EN PARTE</b>	ME REPRESENTA <b>BASTANTE</b>	ME REPRESENTA <b>MUCHO</b>	ME REPRESENTA COMPLETAMENTE
1.	Al participar de mis videojuegos me siento parte de un equipo o comunidad	0	0	0	0	0	0
2.	Me sumerjo tanto en el juego que no me doy cuenta de lo que está ocurriendo a mi alrededor	0	0	0	0	0	0
3.	Disfruto llevar mis habilidades al máximo	0	0	0	0	0	0
4.	Me resulta difícil controlar o limitar el tiempo de juego y, en momentos en los que no debería, juego	0	0	0	0	0	0
5.	Disfruto repetir acciones del videojuego que son difíciles hasta que me salen casi perfectas y automáticas	0	0	0	0	0	0
6.	Juego tanto que me siento aislado y solo	0	0	0	0	0	0
7.	Me siento en calma, relajado y en control en ciertos momentos del juego	0	0	0	0	0	0
8.	Jugar me trae problemas con amigos y familiares	0	0	0	0	0	0
9.	Me parece que superar obstáculos difíciles en los videojuegos ayuda a aumentar mi confianza y lidiar con problemas de mi vida	0	0	0	0	0	0
10.	Busco mejorar mi forma de jugar incluso cuando no estoy jugando, por ejemplo, visitando foros online y aprendiendo de otros jugadores	0	0	0	0	0	0
11.	Regularmente continúo jugando, aunque me sienta cansado/a	0	0	0	0	0	0
12.	Siento que jugar videojuegos es una forma de vida y no sólo recreación	0	0	0	0	0	ο
13.	Me resulta difícil concentrarme en otras actividades porque estoy pensando en jugar	0	0	0	0	0	0
14.	Me obsesiono con algún juego al punto de sentir que controla mi vida	0	0	0	0	0	0
15.	Me parece que jugar videojuegos con mis amigos y familiares fortalece nuestros vínculos	0	0	0	0	0	0
16.	Me pongo nervioso si por alguna razón no puedo jugar	0	0	0	0	0	0
17.	Cuando juego desarrollo habilidades importantes que me ayudan a avanzar en mi vida personal	0	0	0	0	0	0
18.	Me siento frustrado y decepcionado cuando no juego bien	0	0	0	0	0	0

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