

LLOYD D. LEVENSON INSTITUTE OF GAMING, HOSPITALITY & TOURISM

> Underage Gambling Perspectives & Behavior Pilot Study Final Report - January 2016

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Underage Gambling Perspectives & Behavior Study

January 2016

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Commissioned by: Northstar New Jersey Lottery, LLC

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Overview

Today's teens have become accustomed to legalized gambling, now socially accepted and promoted in 48 states, State Lotteries, TV poker tournaments and abundance of advertising promoting the availability and acceptance of such activities. The wide-spread availability and frequency of related advertising can give teens the impression their odds of winning are better than 50%.

Columbia Psychiatry's website, of Columbia University Medical Center, reports that: "Teen problem gambling rates are 2 to 4 times the rate of adults....At this time of life; teenagers are searching for a sense of identity. They are first drawn to gambling for the excitement and to enhance their self-image. Easy access to computers and online gambling take away barriers to gamble in public." (http://columbiapsychiatry.org/gambling-disorders/teens) . The issue is of even greater importance, since teens are technologically savvy, are active social media participants and many play games offered online accessible via social media sites. (Since there are many opportunities for children to gamble, especially via games available through social media, this issue is timely and of profound importance.)

Supporting Literature

An Increase in Problem Gambling Among Adults and Youths

An excerpt from: Williams, R., and Wood, R., (2010) "Stacked Deck" Facilitator's Guide – Why is Problem Gambling Currently of Special Concern?, 7-9.

"The past thirty years have seen a dramatic increase in the availability of legalized gambling opportunities worldwide. With this availability have come higher rates of both gambling and problem gambling. ("Problem gambling" occurs when a person has trouble limiting the money and/or time spent on gambling and this difficulty leads to significant adverse consequences)¹. Severe forms of problem gambling are also known as "pathological gambling" or "compulsive gambling." Among adults, the prevalence of problem gambling in North America increased significantly from 1977 to 1993.²

Though problem gambling rates among adults are of concern,³ the prevalence among youth is even higher. National studies in the United States, Canada, Australia and Sweden have found that problem gambling peaks among 18- to 24-year-olds.⁴ Similarly, a comprehensive review of North American

³ H.J. Shaffer, and M.N. Hall, "Updating and Refining Meta-Analytic Prevalence Estimates of Disordered Gambling Behavior in the United States and Canada," *Canadian Journal of Public Health* 92, no. 3 (2001): 168-172; Alberta Gaming Research Institute, "Reference Sources: Gambling Prevalence: Canada, United States, International," <u>www.abgaminginstitute.ualberta.ca/library_reference.cfm</u>.

⁴ D.R. Gerstein, R.A. Volberg, M.T. Toce, H. Harwood, R.A. Johnson, T. Buie, et al., *Gambling Impact and Behavior Study*, report to the National Gambling Impact Study Commission (Chicago: National Opinion Research Center, University of Chicago, 1999); Productivity Commission, *Australia's Gambling Industries*, report no. 10 (Canberra:AusInfo, 1999); Statistics Canada, "Canadian Community Health Survey – Mental Health & Well Being

¹ P. Neal, P. Delfabbro, and M. O'Neil, *Problem Gambling and Harm: Towards a National Definition* (Melbourne: State of Victoria, Department of Justice, 2005). Retrieved from Gambling Research Australia, www.gamblingresearch.org.au/ CA256902000FE154/Lookup/GRA_Reports_Files1/\$file/FinalReportPrinter.pdf.

² H.J. Shaffer, and M.N. Hall, "Updating and Refining Meta-Analytic Prevalence Estimates of Disordered Gambling Behavior in the United States and Canada," *Canadian Journal of Public Health* 92, no. 3 (2001): 168-172; H.J. Shaffer, M.N. Hall, and J.V. VanderBilt, *Estimating the Prevalence of Disordered Gambling in the United States and Canada: A Meta-Analysis* (Cambridge, MA: Harvard Medical School Division of Addictions, 1997).

prevalence studies found that lifetime rates of problem gambling were highest in college and university students (16.4 percent), followed by adolescents (11.8 percent).⁵ The elevated rates among youth are likely due to the fact that young adults typically have the highest rates of risky behaviors (i.e., substance abuse, reckless driving, unsafe sex and so on).⁶ Moreover, today's youth comprise one of the first generations to have been raised in an environment of extensive legalized and government-sanctioned gambling.

School-based programs are an important part of a general gambling prevention strategy. Therefore, effective school-based programs are for the prevention of problem gambling, such as Stacked Deck, must be identified and put into place."

Digital Media Contributes to Underage Gambling

The convergence of gambling and digital media has meaningful implications for gambling among young people. New gambling technologies (i.e., play/practice sites in social network sites) make gambling increasingly familiar and easily accessible to young people- accessibility being a factor that has been shown to heighten involvement in gambling when land-based casinos are opened in a jurisdiction that previously did not have such venues.⁷

Gambling Has Become Socially Accepted

There has been an unprecedented growth in legalized gambling and a concomitant shift in public sentiment toward gambling. Although opinions vary about gambling, in general a negative sentiment toward gambling has shifted to one of tolerance and acceptance. In its public image, gambling has been transformed from an illegal vice to a legal and socially acceptable leisure activity for adults. Research focusing on the prevalence of gambling among youths, its assessment in this population, gender differences in youth gambling, comparisons between adult and youth gambling and its association with other behaviors find that youths have gambled on legalized games. In addition, it identifies underage gambling as largely illegal and potentially harmful for youths.⁸

Increase of Problem Gambling Frequency - Greater in Adolescents than Adults

Despite the fact that many people perceive problem gambling to be an issue prevalent only in adults, recent research indicates that problem and pathological gambling pose serious concerns among adolescents.⁹ The prevalence of problem gambling among adolescents has been shown to be 2-4 times that of adults. Recent Canadian studies conducted with large community samples have estimated that 4-8% of adolescents currently have a severe gambling problem. In addition, 10-15% of adolescents gamble

⁵ H.J. Shaffer, and M.N. Hall, "Updating and Refining Meta-Analytic Prevalence Estimates of Disordered Gambling Behavior in the United States and Canada," *Canadian Journal of Public Health* 92, no. 3 (2001): 168-172.

⁶ D.K. Eaton, L. Kann, S. Kinchen, J. Ross, J. Hawkins, W.A. Harris, R. Lowry, T. McManus, D. Chyen, S. Shanklin, C. Lim, J.A. Grunbaum, and H. Wechsler, "Youth Risk Behavior Surveillance – United States 2005," *The Journal of School Health* 76, no. 7 (2006): 353-372.

⁽CCHS): Cycle 1.2," www.statcan.ca/cgi-

bin/imdb/p2SV.pl?Function=getSurvey&SDDS=5015&lang=en&db=IMDB&dbg=f&adm=8&dis=2; S. Ronnberg, R.A. Volberg, M.W. Abbott, W.L. Moore, A. Andren, I.L. Munck, J. Jonsson, and O. Svensson, *Gambling and Problem Gambling in Sweden*, report no. 2 of the National Institute of Public Health Series on Gambling (Stockholm: National Institute of Public Health, 1999).

⁷ Wohl, M.J.A., & Sztainert, T. (2011). Where did all the pathological gamblers go? Gambling symptomatology and stage of change predict attrition in longitudinal research. *Journal of Gambling Studies*, 27, 155-169.

⁸ Stinchfield, R., Winters K., Grant, J.E., Potenza, M.N. (2004). Pathological gambling: A clinical guide to treatment (pp. 69-81). Arlington. VA, US: *American Psychiatric Publishing, Inc.*, xvi, 270 pp.

⁹ Derevensky, J.L., & Gupta, R., & Winters, K. (2003). Prevalence rates of youth gambling problems: are the current rates inflated? *Journal of Gambling Studies*, *19*, 405-425.

excessively, making them vulnerable to the development of a more serious gambling problem.¹⁰ While some researchers have argued that these prevalence rates may be overestimated,¹¹ there is ample evidence that gambling among adolescents has increased over the past two decades.¹²

The Project <u>Northstar New Jersey State Lottery, LLC</u> <u>Responsible Gaming Initiative</u>

As part of Northstar New Jersey State Lottery, LLC's (NSNJL) responsible gaming initiative, the Lloyd D. Levenson Institute of Gaming, Hospitality & Tourism (LIGHT) at Stockton University was approached in March 2015 to initiate a pilot study, focusing on underage gambling perspectives and behavior. The Stacked Deck program (a program to prevent problem gambling), which was successfully administered in Canadian schools, was used as a model for the pilot initiative, although the survey instrument was tailored to address the intentions of this study.

The goal of administering the survey was to identify the current incidence of underage gambling and whether the popularity of social media and the availability and frequency of video and/or Internet game play contributes to underage gambling.

Essentially, the study sought to identify how middle and high school students viewed gambling and whether they, or their friends, participated in gambling activity and whether the frequency of video/Internet game play contributes to underage gambling. The study was supported by the Council on Compulsive Gambling of New Jersey and 1800-GAMBLER contact information was included in related materials.

Stockton Institutional Review Board Application & Approval

All active human studies at Stockton University must be reviewed by the Institutional Review Board (IRB) at intervals appropriate to the degree of risk. All Human Subjects Research conducted by Stockton Faculty, Administrators, Staff, and Students or on its campus must be in accordance with Federal Regulations and the Multiple Project Assurance filed with the Office for the Protection for Research Risks (OPRR). Accordingly, LIGHT applied to the IRB to review the methodology of and process by which the study would be executed. The study was subject to a "full review" by the IRB since subjects were underage and due to potential related illegal activity of underage gambling. In accordance with the aforementioned, the principal investigator was certified to conduct research involving human subjects and an application was made to and approved by the IRB detailing the study's intent, supporting literature, survey instrument, related consent/assent forms and methodology.

¹⁰ Dickson, L., Derevensky, J.L., & Gupta, R. (2004). Youth gambling problems: Reduction prevention model. *Addiction Research and Theory, 12,* 305-316.

¹¹Derevensky, J.L., & Gupta, R., & Winters, K. (2003). Prevalence rates of youth gambling problems: are the current rates inflated? *Journal of Gambling Studies, 19,* 405-425 and Ladouceur, R., Dube, D., & Bujold, A. (1994). Prevalence of pathological gambling and related problems among college students in a Quebec metropolitan area. *Canadian Journal of Psychiatry, 39,* 289-293.

¹²Langhinrichsen-Rohling, J., Rohde, P., Seeley, J.R., & Rohling, M.L. (2004). Individual, family, and peer correlates of adolescent gambling. *Journal of Gambling Studies, 20,* 23-46 and Messerlian, C., Derevensky, J., & Gupta, R. (2005). Youth gambling problems: A public health perspective. *Health Promotion International, 20,* 69-79.

The Survey Instrument

LIGHT, in cooperation with the NSNJL, created a survey instrument (Appendix A) consisting of 22 questions, including:

- General demographic information (i.e., age, gender, attending school, etc.)
- Social media/internet sites frequented
- Frequency, type and means of video game play and related game purchases
- General view of gambling activity (i.e., positive, negative, neutral)
- Involvement in gambling activity and, if so:
 - o Frequency of gambling activity
 - o Age when subject first gambled
 - o Confirmation that money (or other form) is used to place wagers
 - If money is used to wager, how it is acquired
 - Who is aware of their gambling activity (i.e., mother, father, guardian, sibling, friend, teacher)
 - o How likely subject will gamble in the future
- Whether subject is aware of friends gambling

Targeted Subjects & Geographic Area

The pilot project targeted 600-900 middle and high school students and focused on individual gambling perspectives and behavior.

Stockton University's School of Education provided a list of approximately 296 school district superintendents throughout the State of New Jersey and provided on-going support to insure a successful study. It was determined that districts in the southern New Jersey region (i.e., Atlantic, Cape May, Cumberland, Gloucester and Ocean counties) would be targeted. An informational "Superintendent Breakfast" meeting was organized at Stockton Seaview Resort & Golf Club in mid-July 2015 and approximately 119 superintendents were invited to attend (Appendix B). Numerous follow-up emails and phone calls were initiated to encourage participation. Four superintendents, representing Galloway Township, Egg Harbor Township, Greater Egg Harbor Regional and Mainland districts attended. Other attendees included: Northstar New Jersey State Lottery, State of New Jersey – Division of State Lottery, Stockton's School of Education, and the Council on Compulsive Gambling of New Jersey (CCGNJ).

The informational meeting provided an overview of the intent of the study, the process by which the study would be administered, comments by CCGNJ, NSNJL and a question and answer session. As a result, all four districts agreed to participate, with a total of 8 schools and consisting of 3 middle and 5 high schools with just under 10,000 students/potential completes. It is interesting to note that all participating school districts were located Atlantic County, where casino gambling has existed for over 30 years, although the scope of the study and invitations to participate included 5 southern New Jersey counties.

Methodology

- 1. Upon confirmation of district participation by each superintendent a letter (Appendix C) and survey copy was sent to participating middle and high school principals.
- 2. LIGHT communicated with each school principal to advise them of the process for survey administration.

- 3. LIGHT supplied Galloway Township, Egg Harbor Township and Mainland Regional school districts with Informed Consent forms (ICF) which were distributed to parents/guardians (Appendix D). Parents were provided with the details about the study and indicated their approval/disapproval for their child to take the survey via the ICF. In most instances, forms were included in "beginning of the year" parent packages, while the timing of other distributions also occurred. However, in the Greater Egg Harbor Township school district, forms were disseminated electronically, along with the distribution of report cards.
- 4. Students were provided with the details about the study's purpose and completed an "Assent" form indicating their approval/disapproval to participate (Appendix E).
- Teachers responsible for administering the survey were provided with instructions (Appendix F). The survey was administered online, via Survey Monkey, during the school day to students who agreed to participate and received approval from their parents/guardians to do so.

SCHOOL	FORM & SURVEY DIST METHOD	TOTAL STUDENT ENROLLMENT	CONSENT/ASSENT FORMS RETURNED	TOTAL SURVEY COMPLETES	COMPLETES % OF STUDENT ENROLLMENT
GALLOWAY TOWNSHIP MIDDLE	PAPER	831	289	159	19%
ALDER MIDDLE	PAPER	1000	92	15	1.5%
EGG HARBOR TWSP HIGH SCHOOL	PAPER	2500	206	68	2.72%
FERNWOOD MIDDLE	PAPER	985	138	30	3.05%
ABSEGAMI HIGH	ELECTRONIC	1657	561	69	4.16%
CEDAR CREEK HIGH	ELECTRONIC	840	563	239	28%
OAKCREST HIGH	ELECTRONIC	1163	334	204	18%
MAINLAND REG HIGH	PAPER	1,309	161	99	7.56%
TOTAL		10,285	2,344	883	8.59%

Participation

Figure 1 – Consent/Assent Form Return v. Survey Completes

{Shaded rows group school(s) located within the same district}

Survey Results

The survey resulted in a total of 883 completes. The following is a summary of survey questions and responses:

Grade	Response	Response	
	Percent	Count	
12	13%	116	
11	21%	192	
10	15%	136	
9	27%	234	
8	13%	111	
7	11%	94	
answered question		883	

Question #1 – Please Identify the grade you are currently in:

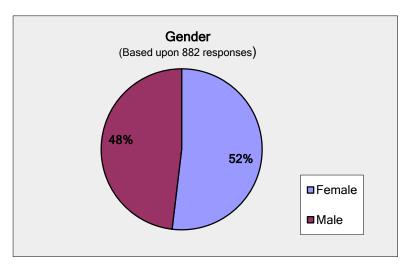
Students in the 9th grade had the highest percentage of responses (27%), followed by 11th grade (21%), 12th grade (13%), 8th grade (13%) and lastly 7th grade (11%).

Question #2 – What is your age?

Age	Response Percent	Response Count
18	3%	23
17	15%	135
16	22%	193
15	17%	147
14	22%	194
13	12%	107
12	9%	83
answered question		882
skipped question		1

The age of respondents was, of course, similar to responses by grade: The most responses came from students 14 Years Old (YO) (22%), followed by 16 YO (22%), 15 YO (17%), 17 YO (15%), 13 YO (12%), 12 YO (9%), and 18 YO (3%).

Question #3 – What is your gender?



Respondents' gender was nearly a 50/50 split with 48% male respondents and 52% female.

School	Response Percent	Response Count
Galloway Township Middle	18%	159
Egg Harbor Township High (EHT)*	8%	68
Fernwood Middle School (EHT)*	3%	30
Alder Middle School (EHT)*	2%	15
Absegami High School (GEHR)*	8%	69
Cedar Creek High School (GEHR)*	27%	239
Oakcrest High School (GEHR)*	23%	203
Mainland Regional High School	11%	99
answered question		882
skipped question		1

Question #4 -

*Acronym following school indicates school district.

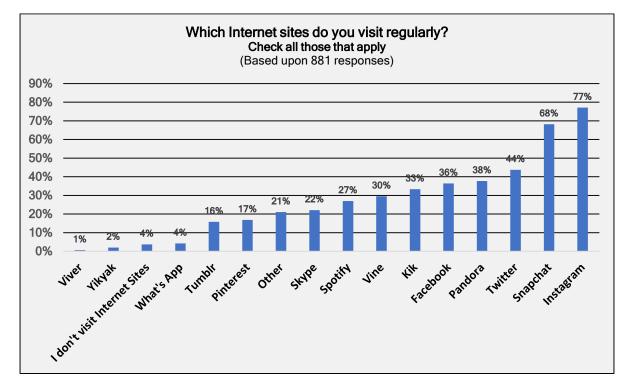
What school do you attend?

The Greater Egg Harbor Regional School District, consisting of Absegami, Cedar Creek and Oakcrest high schools, returned the greatest number of responses totaling 511 or 58% of the total responses, followed by Galloway Township Middle School with 159 responses or a total of 18%.

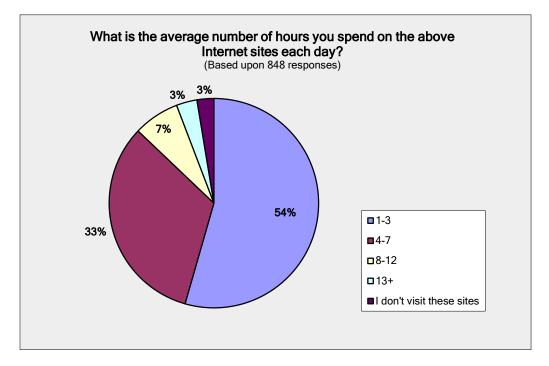
Total Respondents 18 Years Old by School

School	Responses 18 Years Old
Egg Harbor Township High School	1
Absegami High School (GEHR)	1
Cedar Creek High School (GEHR)	7
Oakcrest High School (GEHR)	9
Mainland Regional High School	5
Total Respondents - 18 Years Old	23

Question #5 –Internet Sites Visited

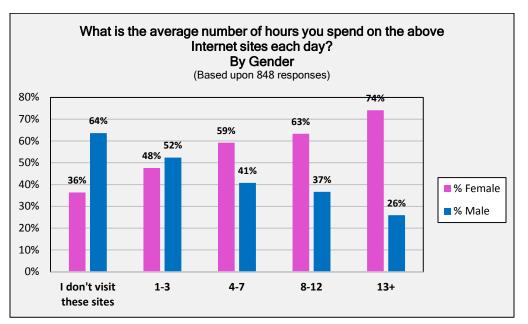


The top three Internet sites visited by respondents included: Instagram (77%), Snapchat (68%) and Twitter (43%). "Other" responses to Internet sites visited included: YouTube & WattPad.



Question #6 – Average number of hours spent on the Internet

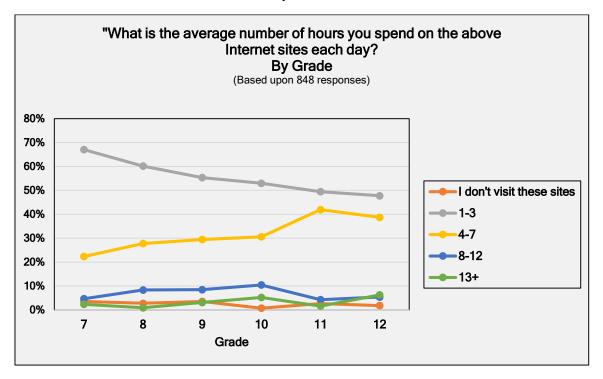
54% of respondents spend 1 to 3 hours on the Internet, followed by just under 33% spending 4 to 7 hours online. 7% of respondents spend 8 to 12 hours online, while 3% spend thirteen hours or more.



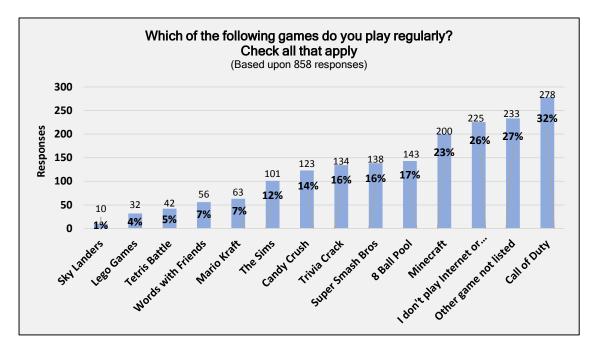
By Gender

Separating the data by gender, females make up a larger proportion of the high user (4 hours or more) respondents than males.

By Grade



Those who spend 1 to 3 hours on Internet sites declines with each grade, while those spending 4 to 7 hours online generally increases with each grade.



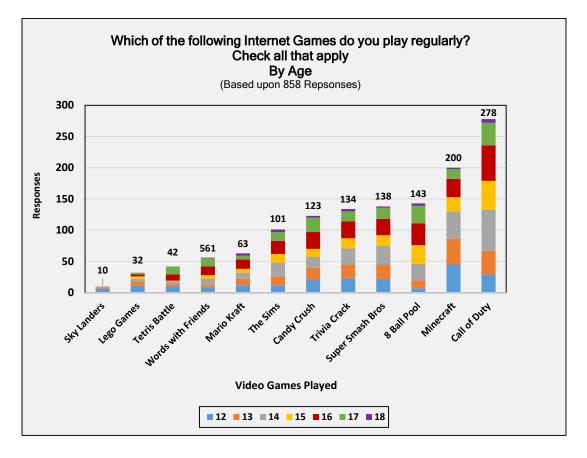
The top two games played Internet or video games included Call of Duty (32%) and Minecraft (23%). 27% of those responding played games that were not listed, included:

- Assassin's Creed
- Clash of Clans
- Counter Strike
- Crossy Road
- Dragon Ball
- Dying Light
- Fallout 4
- Fifa
- Flappy Bird
- Fun Run
- Games
- Garry's Mod

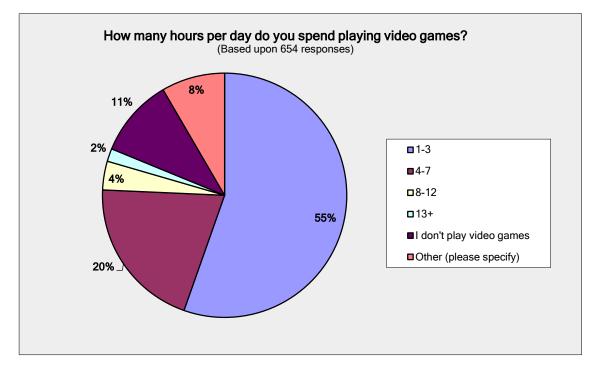
- Geometry Dash
- GTA V GTA 5
- League of Legends
- Madden
- Mario Kraft
- Mortal Kombat
- NBA 2K & NBA 2K16
- Pokemon
- Rocket League 2K 15
- Smashy Road
- Subway Surfers
- Theft Auto 5

26% of those responding indicated that they do not play Internet or video games.





Question #8 – Hours spent playing video games

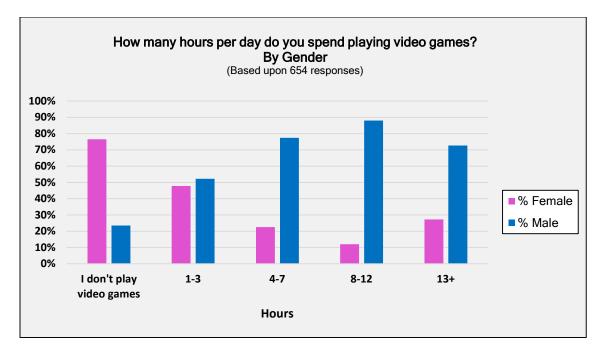


55% of respondents who play video games do so for 1 to 3 hours per day, followed by 20% who play for 4 to 7 hours. 4% play for 8 to 12 hours, followed by 2% who play for 13 or more hours per day. 8% identified "Other" including:

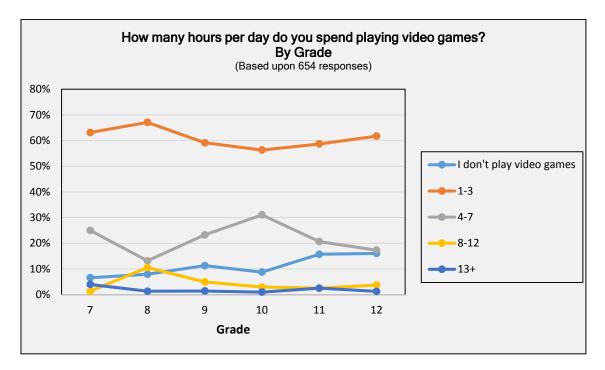
- Less than 1 hour
- 30 minutes
- 15 minutes

11% responded that they do not play video games.

By Gender



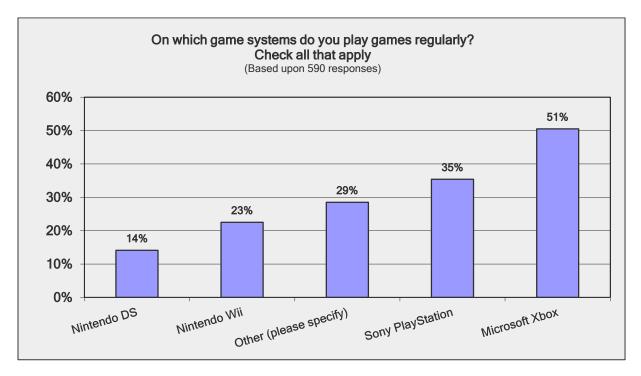
While survey responses reveal an almost 50/50 split between males and females for those spending 1 to 3 hours playing video games, in the groups playing video games for longer periods, males make up a much higher percentage than females.



By Grade

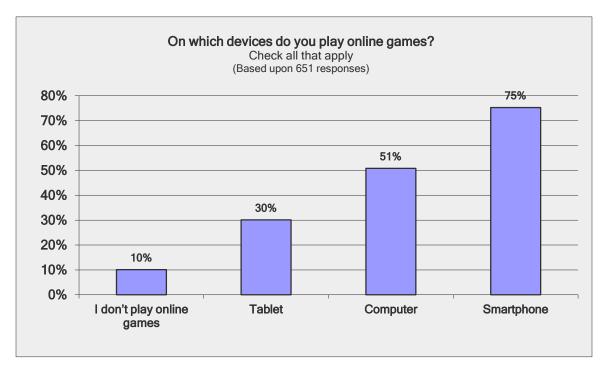
While most respondents play video games for 1 to 3 hours, those playing for 4 to 7 hours peaks in grade 10 and declines thereafter. The majority of those playing for 8 to 12 hours are in grade 8.

Question #9 – Preferred Games System

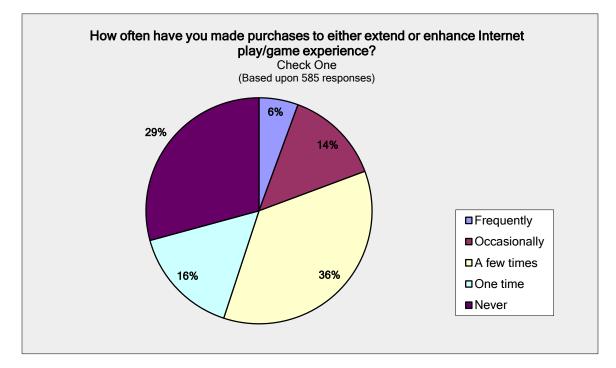


51% of respondents who play video games prefer Microsoft Xbox game system, followed by 35% using Sony Play Station and 23% using Nintendo Wii and 14% playing on Nintendo DS.

Question #10 – Preferred Device

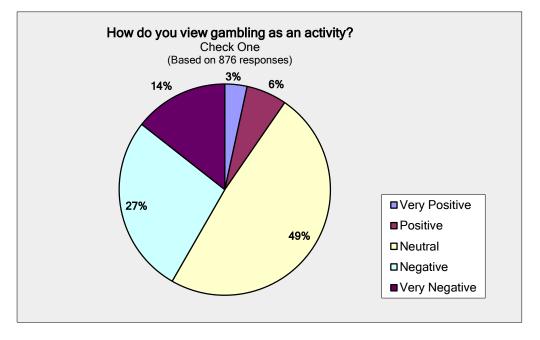


Of those who play online games, Smartphones were the preferred device by 75%, followed by nearly 51% using a Computer and 30% preferring a tablet. 28% indicated the following "Other" devices to play online games: PC, phone, Ipad, None and Iphone (not reflected in the above chart).



Question #11 – Frequency of Internet Game Purchases

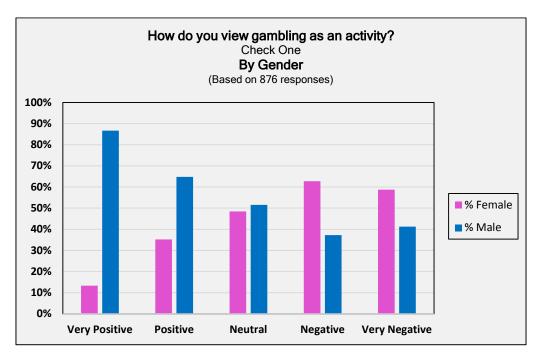
6% of respondents frequently made purchases to extend or enhance their Internet play/game experience, followed by almost 14% who did so occasionally and 36% who made purchases a few times. 16% indicated that they made a one-time purchase. 29% claimed they never made Internet game purchases.



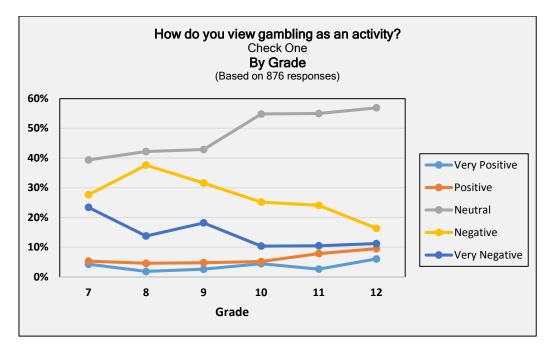
Question #12 – View of Gambling Activity

Student responses indicated that 14% thought very negatively of gambling, while 27% thought it to be negative. A total of 41% of those surveyed viewed gambling as a negative activity. 6% believed the activity was "positive" and 3% thought it to be "very positive". While a total of 9% had a positive view of gambling (i.e., the sum of "positive" and "very positive" percentage responses), 49% had a neutral opinion; this could be a cause for concern due to being in their developmental years and have yet to identify perspective(s). As a result, students' potential to cultivate a "positive" view of gambling, in which they could potentially engage, could total 58% of those surveyed.

By Gender

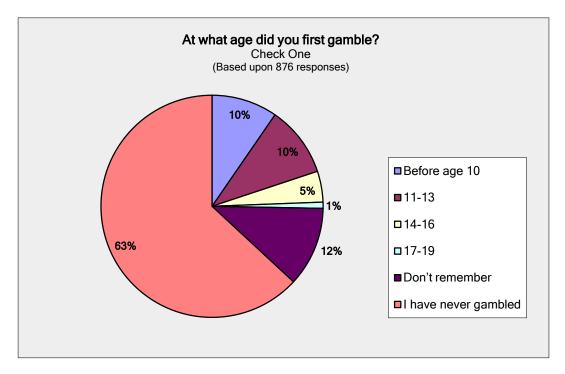


Males make up much higher proportions of the groups with very positive/positive view of gambling, the neutral group is almost evenly balanced between the genders, and females make up larger proportions of the negative/very negative groups.



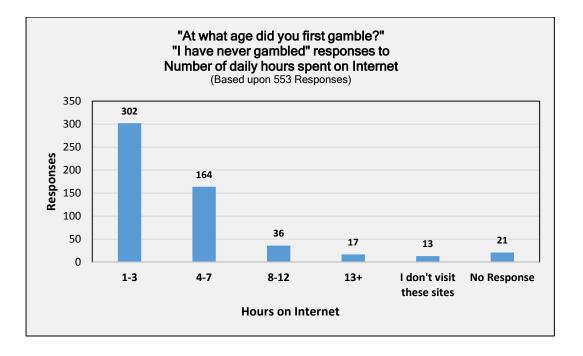
By Grade

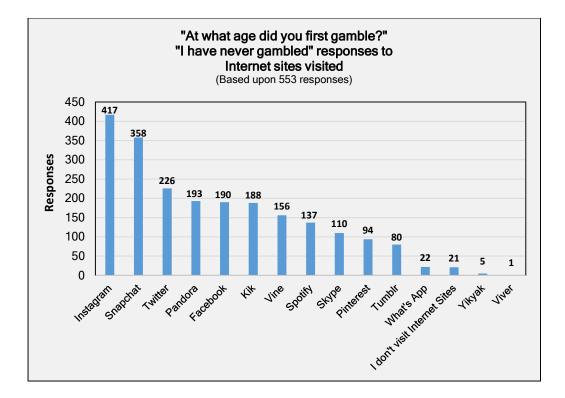
Respondents who identified a neutral opinion of gambling increased with the progression of each grade, while those with a negative perspective declined respectively. Those with a positive opinion increased slightly.

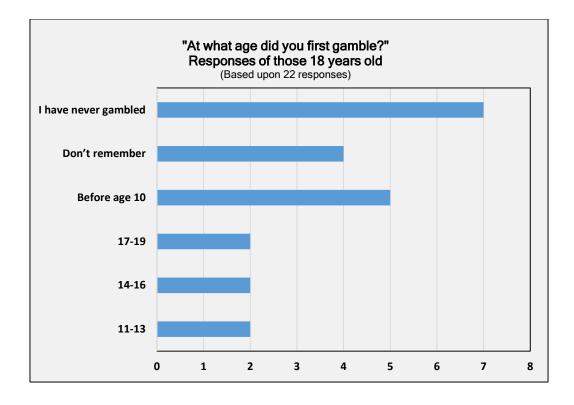


Question #13 – Age of First Gambling Experience

12% of those responding indicated they did not remember the age when they first gambled. 10% responded that their first gambling experience occurred between the ages of 11 and 13, 10% before age 10, 5% between the ages of 14 and 16 and 1% between the ages of 17 and 19. 63% of survey respondents indicated they never gambled.









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