



LESSON PLAN

Level:	Grades 11 to 12
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Duration:	2 hours

Online Gambling and Youth



This lesson is part of *USE, UNDERSTAND & CREATE: A Digital Literacy Framework for Canadian Schools*:
<http://mediasmarts.ca/teacher-resources/digital-literacy-framework>.

Overview

This lesson looks at the ways in which online gambling draws in youth and increases the risk that they will become problem gamblers. Students learn about behaviour modification theory and apply that knowledge to understanding why gambling, and online gambling in particular, is likely to lead to problem gambling in youth.

Learning Outcomes

Students will demonstrate the ability to:

- make and test hypotheses
- acquire knowledge through designing an experiment
- apply acquired knowledge to a real-life situation
- argue and support an opinion

Preparation and Materials

Read the backgrounder:

- *Gambling and Youth: An Overview for Teachers and Parents*

Photocopy the following handouts:

- *Behaviour Modification*
- *What are the Odds?*
- *Tricks of the Trade*



Procedure

What are the Odds?

Distribute the handout *What are the Odds?* Explain to students that you are looking at how we perceive risk and chance – which events are more likely to occur, and which are less likely? Read through the list of events and then have students guess what the odds are for each one, matching the event to one of the percentages in the right-hand column. Allow about five minutes for this activity and then provide answers from the answer key.

Discuss with the class: which events were less likely than they had thought? Which events were more likely to occur? Some events that will probably be less likely than expected are the chances of someone being murdered in Canada (0.000176%) and the chances of winning a lottery jackpot (0.000000625%). Contrast these with the odds of getting “heads” ten times in a row: 0.0098%, much more likely than either. Some events that will probably be more likely than expected are having two people in a group of 30 with the same birthday (70%) and a Canadian teen being a problem gambler (4%).

Behaviour Modification

Ask the class how they think people develop habits. Use the *Behaviour Modification* handout to introduce the concept of **behaviour modification** – the idea that our behaviour is influenced by being given or by withholding **rewards**. This process is called **reinforcement**. Once a behaviour has been reinforced enough that the reward is no longer needed it is said to have been **established**, while a behaviour that has been discouraged completely is said to have been **extinguished**. The process works the same whether you are trying to make someone establish or extinguish a behaviour; the only difference is that the reward is given for doing something if you’re trying to establish it (a dog is given a treat for doing a trick), and it’s given for not doing something if you’re trying to extinguish it (a dog is given a treat for not barking at the doorbell).

Ask the class if they can think of any examples of behaviour modification at home or at school (grades [a reward given], detentions [a reward withheld], allowance for chores [a reward given], etc.).

Media extension: If possible, show the following clip from *Supernanny* to illustrate behaviour modification: <https://www.youtube.com/watch?v=tmR769fpBrU>. Ask the students to watch for which rewards the Nanny grants or withholds in exchange for what behaviours, and how the behaviours of the children change as a result.

Introduce to the class the three ways of **reinforcing** behaviour:

1. *Continuous reinforcement:* you receive the reward every time you show the desired behaviour. Example: every time you clean your room, you get a cookie.
2. *Fixed ratio reinforcement:* you receive the reward once you have shown the desired behaviour a certain number of times. Example: you get a cookie every third time you clean your room.
3. *Variable reinforcement:* each time you show the desired behaviour you have a random chance of getting the reward. Example: each time you clean your room, your mother rolls a die. If she gets a 2 or a 4 you get a cookie.



Ask the class which of these reinforcement schedules they think is likely to be the most effective. (Most will probably guess no. 1.) Tell them that the answer is a bit complicated: no. 1 is the quickest way to establish a behaviour, but that behaviours established in this way are easily extinguished if the reward stops being given. No. 2 is much like no. 1, but a little slower to both establish and to extinguish. No. 3 takes more time to establish a behaviour than #1, but once established in this way it is nearly impossible to extinguish.

Explain to the class that several other factors also affect how well behaviour modification works:

1. *Satiation*: Does the subject have a limited appetite for the reward? (For instance, someone who doesn't like cookies much will reach satiation quickly if cookies are used as a reward, while it will take longer for someone who loves them.)
2. *Immediacy*: How soon after the behaviour does the subject get the reward? (For instance, if you don't get your cookie until the next day, the effect will be much less powerful than if you get it the moment you've finished cleaning your room.)
3. *Size*: The proportion of the reward to the cost of the behaviour. (For example, if you receive ten cookies for cleaning your room the effect will be greater than if you receive one cookie –assuming your appetite for cookies is unlimited.)
4. *Isolation*: The fewer distractions there are during behaviour modification, the stronger the effect will be. (For example, if you spend the whole day cleaning your room, and are given a cookie each time you complete a particular task, the effect will be greater than if the same were spread out over a week.)

Break students into pairs and small groups and have them come up with an experiment that will use behaviour modification to encourage someone to push a button. Tell the students that to be successful, their process should make the subject keep pushing the button for a long time even if the reward (whatever it may be) stops coming. Give the students 10-15 minutes to develop their experiments, and then have them share with the class.

Most of the experiments will probably look like this:

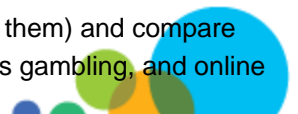
- Variable reinforcement
- A reward that cannot easily be satiated, such as money, praise, excitement, etc.
- Immediate reinforcement
- A reward that is large in relation to the desired behaviour (pushing the button)
- An isolated environment with few distractions

Be sure to point out these elements.

Online Gambling

Ask the students if they know anyone who plays poker or any other form of gambling online, both for “practice” and for money (mention that they don't have to say who – several hands will probably go up). Ask if they know anyone whom they think may be a problem gambler (probably no hands will go up – leave this point for now).

Distribute the handout *Tricks of the Trade*. Have students read through it (or read through it with them) and compare what they know and have learned to the button-pushing experiments they designed. What makes gambling, and online gambling in particular, an effective form of behaviour modification?



Problem Gambling

Ask students what they think is meant by the term *problem gambler*. Points that are likely to be raised are that a problem gambler cannot control how much time s/he spends gambling, how much money s/he spends, and the effects of gambling on his/her life.

Remind students that 4% of Canadian youth are thought to be problem gamblers. Point out to students that 4% is just under one in twenty. If the classroom is a typical sample, how many problem gamblers are there likely to be? (One, with a roughly fifty percent chance of another in a thirty person class.) Ask, again, whether they know anyone whom they think might be a problem gambler.

Explain to students that over half of all Canadian students (surveyed by The International Centre for Youth Gambling Problems and High-Risk Behaviors) reported gambling online at “practice” sites. Based on what they know and have learned about online gambling and behaviour modification, what might make online gambling (and particularly “practice” sites open to youth) more likely to cause youth to become problem gamblers?

Evaluation

Options:

Have students research and write an essay for or against online gambling being legal.

Have students research and write an essay for or against “practice” gambling sites being open to youth.

Organize a debate on either of the above subjects.

Have students create a public awareness campaign that will discourage youth from becoming problem gamblers, drawing on what they have learned about behaviour modification and online gambling.

Have students research and write an essay for or against government-run online gambling sites.



Gambling and Youth: An Overview for Teachers and Parents

Serious research into youth gambling online is just beginning, but some things are already clear: young people are gambling online. Many are doing so using real money. And some are becoming problem gamblers.

According to the International Centre for Youth Gambling Problems and High-Risk Behaviors, 9% of high school students have gambled for money online. However, many more – over 50% – are playing on “practice” sites.¹ Jon Kelly, CEO of Ontario’s Responsible Gambling Council, says that gambling is highly prominent in youth culture: “Even kids as young as nine years are learning about gambling. They may not be gambling with money, but they’re learning concepts of gambling.”²

These practice sites are really no safer than pay sites. To begin with, they are often sections of the pay sites, a click away from the real thing. Practice sites serve to train young people to gamble by providing all of the excitement and rewards with none of the costs. According to Dr. Lawson Bernstein, a neuropsychiatrist and expert on gambling addiction, “The biochemical changes in the brain associated with gambling are not dissimilar to the biochemical effects of drugs of abuse such as cocaine.” In some people it will engender a high, and they’ll start to chase that high.”³

Moreover, practice sites give young people a distorted view of gambling. First, because they only involve “play money,” there is no cost to winning. As well, practice sites typically have a higher pay-out rate than pay sites.⁴ Most importantly, the sites – which are frequently advertised on TV – introduce young people to electronic gambling, which is generally considered to be the most addictive form of gambling due to the instant rewards, the isolation and the lack of time limits.⁵

Unfortunately, gambling is particularly bad for young people, who are more likely than adults to become problem gamblers. According to Jeff Devernsky, director of the International Center for Youth Gambling, teenagers “perceive themselves as invincible and invulnerable. They tend not to have the responsibility that adults do and don’t have to provide for their families and as a result are much more likely to engage in this behavior.”⁶

Besides being more at risk of becoming problem gamblers, young people are more likely to suffer the negative consequences of problem gambling. Mark Potenza, associate professor of psychiatry at the Yale University School of Medicine, found that “adolescent gamblers were more likely to report problems with alcohol and drug use and more likely to report depression.”⁷

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- 1 Jessica McBride, BA, BSc. Internet Gambling Among Youth: A Preliminary Examination. International Centre for Youth Gambling Problems and High-Risk Behaviors
 - 2 Online gambling snagging children as young as 9. CBC News, April 6 2006
 - 3 Vegas, Baby: TV Bets on Gambling. Fox News, January 12 2004
 - 4 McBride
 - 5 Online Gambling and Youth. Problem Gambling Prevention. http://www.co.lane.or.us/prevention/gambling/youth_online.htm
 - 6 Logging On And Losing Out: Dealing Addiction to America’s Kids. American Radio Works. <http://americanradioworks.publicradio.org/features/gambling/d2.html>
 - 7 Ibid



Behaviour Modification

Behaviour modification is the idea that our behaviour is influenced by being given or by withholding rewards.

This process is called reinforcement. Once a behaviour has been reinforced enough that the reward is no longer needed it is said to have been established, while a behaviour that has been discouraged completely is said to have been extinguished.

The process works the same whether you are trying to establish or extinguish a behaviour. The only difference is that the reward is given for doing something if you're trying to establish it (a dog is given a treat for doing a trick), and it's given for not doing something if you're trying to extinguish it (a dog is given a treat for not barking at the doorbell).

Types of reinforcement:

1. *Continuous reinforcement:* you receive the reward every time you show the desired behaviour. Example: every time you clean your room, you get a cookie.
2. *Fixed ratio reinforcement:* you receive the reward once you have shown the desired behaviour a certain number of times. Example: you get a cookie every third time you clean your room.
3. *Variable reinforcement:* each time you show the desired behaviour you have a random chance of getting the reward. Example: each time you clean your room, your mother rolls a die. If she gets a 2 or a 4 you get a cookie.

Other factors that encourage reinforcement:

1. *Satiation:* Does the subject have a limited appetite for the reward? (For instance, someone who doesn't like cookies much will reach satiation quickly if cookies are used as a reward, while it will take longer for someone who loves them.)
2. *Immediacy:* How soon after the behaviour does the subject get the reward? (For instance, if you don't get your cookie until the next day, the effect will be much less powerful than if you get it the moment you've finished cleaning your room.)
3. *Size:* The proportion of the reward to the cost of the behaviour. (For example, if you receive ten cookies for cleaning your room the effect will be greater than if you receive one cookie – assuming your appetite for cookies is unlimited.)
4. *Isolation:* The fewer distractions there are during behaviour modification, the stronger the effect will be. (For example, if you spend the whole day cleaning your room, and are given a cookie each time you complete a particular task, the effect will be greater than if the same were spread out over a week.)



What are the Odds?

We often don't have a very good idea how likely or unlikely events or instances occur. Listed below is a list of events that may be more or less likely to happen. Try to match each event to the odds of it happening.

- a. A car being stolen in Columbus, Ohio
- b. Being dealt a full house in five-card draw poker
- c. Being murdered in Canada
- d. Being struck by lightning
- e. Getting "heads" in a single coin flip
- f. Getting "heads" on a coin flip 10 times in a row
- g. Successfully navigating an asteroid field (according to C-3P0)
- h. Two people in a group of 30 sharing a birthday
- i. A young Canadian gambling online for money
- j. Winning the jackpot in a typical lottery
- k. A Canadian adult gambling for money in the past year
- l. A Canadian teenager being a problem gambler

Event	Odds
	0.000000625%
	50%
	0.56%
	0.000176%
	75%
	0.000003333333%
	0.003%
	4%
	70%
	0.144%
	18%
	0.0098%



What are the Odds? Answer Key

- a. A car being stolen in Columbus, Ohio: 0.56%
- b. Being dealt a full house: 0.144%
- c. Being murdered in Canada: 0.000176%
- d. Being struck by lightning: 0.000003333333%
- e. Getting “heads” in a single coin flip: 50%
- f. Getting “heads” on a coin-flip 10 times in a row: 0.0098%
- g. Successfully navigating an asteroid field (according to C-3P0): 0.003%
- h. Two people in a group of 30 sharing a birthday: 70%
- i. A young Canadian (age 18-24) gambling online for money: 18%
- j. Winning the jackpot in a typical lottery: 0.000000625%
- k. A Canadian adult gambling for money in the past year: 75%
- l. A Canadian teenager being a problem gambler: 4%



Tricks of the Trade: How Online Gambling Sites Win and Keep Users

- Ads for online gambling sites make gambling look **fun, sophisticated and risk-free**
- Online gambling is the fastest-growing segment of the gambling industry, and is especially popular with teens and young adults.
- The gambling industry promotes **misleading stories** about young people who gamble as a part-time job, or use it to pay their way through school
- Unlike a casino, gambling sites are **as near as your computer** (or even your smartphone or tablet)
- Online gambling is a **low-commitment** activity – you can do it while doing other things
- Young people already associate the Internet with **fun and entertainment**
- Gambling sites offer games that **don't use real money** for young people
- Games **sold as "practice" sites** are a way to improve your skill rather than a way of getting hooked on gambling
- Practice sites have **higher pay-outs** (more chance of winning) than pay sites
- Practice sites are **open to young people**; studies have shown that **the earlier you start gambling, the more likely you are to become a problem gambler**
- All it takes is a **credit card** to graduate from practice to pay sites
- Online gambling sites **emphasize** the things that make gambling addictive:
 - **Infrequent rewards** make you win just often enough to keep playing.
 - **The mix of wins and losses** actually makes you more likely to keep gambling: wins make you think you will win more, while losses make you feel you have to keep playing until you win back what you've lost.
 - **Movement, colour and noise** stimulate you, especially when you win.
 - **Isolation** means nothing distracts you from playing.
 - **Absence of time cues** means you don't know how long you've been playing.



Task Assessment Rubric: Debate/Essay

	Learning Expectations	Achievement
<p>Use</p> <p>Skills and competencies that fall under “use” range from basic technical know-how – using computer programs such as word processors, web browsers, email, and other communication tools – to the more sophisticated abilities for accessing and using knowledge resources, such as search engines and online databases, and emerging technologies such as cloud computing.</p>	<p><i>Digital Health:</i></p> <p>identify habits and behaviours (eg, excessive screen time or video game usage, smoking) that can be detrimental to health, and explain how people can be encouraged to adopt healthier alternatives</p> <p>assess and reduce/avoid technology related threats to his/her health</p> <p><i>Consumer Awareness:</i></p> <p>understand the technologies he/she is using at a level that is sufficient to underpin good purchasing decisions</p>	<p>Insufficient (R);</p> <p>Beginning (1);</p> <p>Developing (2);</p> <p>Competent (3)</p> <p>Confident (4)</p>
<p>Understand</p> <p>Understand includes recognizing how networked technology affects our behaviour and our perceptions, beliefs and feelings about the world around us.</p> <p>Understand also prepares us for a knowledge economy as we develop information management skills for finding, evaluating and effectively using information to communicate, collaborate and solve problems.</p>	<p><i>Digital Health:</i></p> <p>demonstrate awareness of his/her media habits and the array of media he/she uses on a weekly basis, and the role of digital media in his/her life</p> <p>demonstrate and understanding of the habit-forming nature of some digital media</p> <p><i>Consumer Awareness:</i></p> <p>understand the ways websites and companies influence consumers' playing and spending habits, as well as consider companies' motives in doing so</p> <p>show an understanding of the roles and responsibilities of different stakeholders in relation to online gambling</p>	<p>Insufficient (R);</p> <p>Beginning (1);</p> <p>Developing (2);</p> <p>Competent (3)</p> <p>Confident (4)</p>

	Learning Expectations	Achievement
<p>Create</p> <p>Create is the ability to produce content and effectively communicate through a variety of digital media tools. It includes being able to adapt what we produce for various contexts and audiences; to create and communicate using rich media such as images, video and sound; and to effectively and responsibly engage with user-generated content such as blogs and discussion forums, video and photo sharing, social gaming and other forms of social media.</p> <p>The ability to create using digital media ensures that Canadians are active contributors to digital society.</p>	<p><i>Consumer Awareness:</i> develop personal rules of conduct that ensure healthy and safe practices</p> <p><i>Community Engagement:</i> create a work (debate or essay) that clearly communicates their understanding and expresses their opinion on the issues relating to online gambling</p> <p>identify and participate responsibly in discussions that foster positive community</p> <p>show an understanding of the interrelationship between rights and responsibilities online</p>	<p>Insufficient (R); Beginning (1); Developing (2); Competent (3) Confident (4)</p>

Task Assessment Rubric: Public Awareness Campaign

	<i>Learning Expectations</i>	<i>Achievement</i>
<p>Use</p> <p>Skills and competencies that fall under “use” range from basic technical know-how – using computer programs such as word processors, web browsers, email and other communication tools – to the more sophisticated abilities for accessing and using knowledge resources such as search engines and online databases and emerging technologies such as cloud computing.</p>	<p><i>Digital Health</i></p> <p>use digital media to promote healthy and responsible online behaviour</p> <p><i>Consumer Awareness:</i></p> <p>use digital media to promote awareness of online consumer issues</p> <p>exhibit leadership as a digital citizen</p> <p><i>Making and Remixing:</i></p> <p>communicate information and ideas effectively to multiple audiences using a variety of media and formats</p>	<p>Insufficient (R)</p> <p>Beginning (1)</p> <p>Developing (2)</p> <p>Competent (3)</p> <p>Confident (4)</p>
<p>Understand</p> <p>“Understand” includes recognizing how networked technology affects our behaviour and our perceptions, beliefs and feelings about the world around us.</p> <p>“Understand” also prepares us for a knowledge economy as we develop information management skills for finding, evaluating and effectively using information to communicate, collaborate and solve problems.</p>	<p><i>Digital Health:</i></p> <p>show understanding of concepts relating to online gambling and problematic Internet use</p> <p>understand the dynamics of online gambling and how it affects all of the people involved</p> <p><i>Consumer Awareness:</i></p> <p>understand how some online platforms promote unhealthy messages through multimedia (text, images, audio, video)</p> <p>show an understanding of the issues through their creative work</p> <p><i>Making and Remixing:</i></p> <p>select and use applications effectively and productively (e.g. chooses the most appropriate technologies according to the task)</p> <p>show an understanding of the forms and techniques of the medium and genre:</p> <ul style="list-style-type: none"> • the chosen topic, issue and solution were clear • the product displayed an insight into a topic and opinion 	<p>Insufficient (R)</p> <p>Beginning (1)</p> <p>Developing (2)</p> <p>Competent (3)</p> <p>Confident (4)</p>

	Learning Expectations	Achievement
<p>Create</p> <p>“Create” is the ability to produce content and effectively communicate through a variety of digital media tools. It includes being able to adapt what we produce for various contexts and audiences; to create and communicate using rich media such as images, video and sound; and to effectively and responsibly engage with user-generated content such as blogs and discussion forums, video and photo sharing, social gaming and other forms of social media.</p> <p>The ability to create using digital media ensures that Canadians are active contributors to digital society.</p>	<p><i>Digital Health</i></p> <p>create a digital work that effectively promotes healthy online behaviour</p> <p><i>Consumer Awareness:</i></p> <p>make valuable contributions to the public conversation relating to online gambling (e.g. wikis, public forums, reviews)</p> <p>create a practical implementation plan</p> <p><i>Making and Remixing:</i></p> <p>contribute to project teams to produce original works or solve problems</p> <p>interact, collaborate, co-construct content and publish with peers, experts or others employing a variety of digital environments and media</p> <p>effectively apply the forms and techniques of the medium and genre</p>	<p>Insufficient (R)</p> <p>Beginning (1)</p> <p>Developing (2)</p> <p>Competent (3)</p> <p>Confident (4)</p>