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LEVEL 2 AWARD THINKING AND REASONING SKILLS

B902/01/RB Unit 2 Thinking and Reasoning Skills Case Study

PRE-RELEASE MATERIAL

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INSTRUCTIONS TO CANDIDATES

- This Resource Booklet is for examination preparation. You will be given a clean copy in the examination.

INFORMATION FOR CANDIDATES

- **CONTENTS OF THE RESOURCE BOOKLET**
 - Document 1 Background information
 - Documents 2a, 2b Extracts from a website on video game addiction and violence
 - Document 3 A 2014 article about a popular game app
 - Document 4 A selection of comments about issues related to gaming
 - Documents 5a, 5b Information taken from the PEGI website
 - Document 6 Graph showing the proportion of the UK population who play games, by age group and gender
 - Document 7 A gaming survey carried out by a student
- This document consists of **12** pages. Any blank pages are indicated.

INSTRUCTION TO EXAMS OFFICER/INVIGILATOR

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DOCUMENT 1

Background information

Computer and video games are enjoyed by millions of people around the world. For some, this is an occasional pastime, whilst for many 'active gamers' it accounts for a significant part of daily life.

Many games are suitable for players of all ages, though there are some that would be considered unsuitable for children. The suitability of a game for a particular age group can be established by looking at its PEGI rating on the packaging, which is based on whether or not the content is age appropriate, not on the level of difficulty. Age levels are 3, 7, 12, 16 and 18. PEGI is used and recognised throughout Europe as a method of protecting young people from inappropriate gaming content and harmful images, though games which are produced illegally or outside Europe may not have a PEGI rating.

Labels indicating certain aspects of the content of a game may also appear on the packaging of a PEGI rated game. This is designed to alert parents to the main reasons behind the age rating for that game. For example, a game which has been rated 18 because of bad language and violent content would display the following labels:



Some people believe that certain games, particularly those with violent and addictive content, ought to be banned. One of the main causes for concern is a perceived link between antisocial behaviour and gaming. Such behaviour can range from aggressive and violent behaviour carried out by those who play violent games, to general withdrawal from friends and family because of an unhealthy preoccupation with gaming. Due to the rapid growth of gaming technology in recent years, long term studies into the effects of gaming on psychological and social development are not yet available.

The addictive nature of video gaming is also a controversial matter. Many believe that games are designed to encourage players to become addicted, and that this is a growing problem affecting people of all ages, but particularly those who are young and vulnerable. Research into the psychology of addiction has suggested that we have an evolutionary 'built-in' weakness for addiction, because our brain is 'wired-up' to make us want to repeat pleasurable behaviour. Critics argue that game designers are taking advantage of that weakness by building pleasurable rewards into the structure of games.

DOCUMENT 2

Extracts from a website on video game addiction and violence**2a Violence in video gaming**

Today, on Amazon.com, one of the most popular video games being sold is titled 'Call of Duty 4: Modern Warfare.' In this game, players can take on the role of either a U.S. or British soldier who is sent to military 'hot spots' to defeat the world's most dangerous enemies. Like other games in its genre, the images are near lifelike and the violence is graphic.

As the level of violence in video games has increased, so has concern for the effects on those who play – especially those who play a lot. It has been suggested that banning violent video games will reduce school shootings; most school shootings in recent years have been carried out by avid gamers, and their games of choice were always dark and violent.

Though video games made their appearance in the 1970s, it wasn't until systems like the Sony PlayStation were released in the 1980s that violence became an issue. Along with these more sophisticated systems came the ability to make graphics more lifelike. The more lifelike they've become, the more interest there has been in the correlation between violent games and violent behaviour.

In 2002, researchers Anderson and Bushman developed the General Aggression Model (GAM), which is a way of understanding the causes of aggressive behaviour. Often considered one of the greatest contributions to the study of violence and video games, the GAM helps explain the complex relationship between violent video games and aggressive gamers. The GAM takes some (though not all) of the heat off video games by acknowledging that a gamer's personality plays into how (s)he is affected by violence. Some people's responses are naturally more hostile, making them predisposed to respond more aggressively to violent video games.

Short-term effects were easily identified in the GAM; the most prominent being that violent games change the way gamers interpret and respond to aggressive acts. Even those who aren't predisposed to aggression respond with increased hostility after playing a violent video game. Long-term effects of violent video games are still uncertain and are fiercely debated. No long-term studies have been conducted to date, so there are only hypotheses. Anderson and Bushman theorised that excessive exposure to violent video games causes the formation of aggressive beliefs and attitudes, while also desensitising gamers to violent behaviours.

Although long-term effects haven't been clinically documented, one need only look at the way video game violence has progressively increased over the past two decades to get a sense of potential long-term effects. Parents would be wise to monitor the amount of time their kids spend gaming and watch closely for any negative effects.

2b The addictive nature of video gaming

Most adolescents like to spend at least part of their free time playing video games. But for some, what starts out as innocent recreation can become an addiction. Soon friends, family, school, and even personal hygiene are neglected as nearly every spare moment is spent playing the game.

But what makes a game addictive? Are there certain characteristics that make some games more addictive than others? Why are some teens more susceptible than others to this kind of addiction?

For starters, video games are *designed* to be addictive. Game designers are always looking for ways to make their games more interesting and increase the amount of time people will spend playing them. There are websites devoted to gaming design where gamers try to answer the question, “What makes a video game addictive?” They want you – once you log in or pick up that controller – to never want to stop playing.

Consequently, games are designed to be just difficult enough to be truly challenging, while allowing players to achieve small accomplishments that compel them to keep playing. In that respect, video games are designed in a similar way to gambling casinos. They allow players to have small ‘wins’ that keep them playing. There are several ‘hooks’ that are built into games with the intent of making them ‘addictive’:

- **The High Score**
Trying to beat the high score (even if the player is trying to beat his own score) can keep a player playing for hours.
- **Beating the Game**
This ‘hook’ isn’t used in online role-playing games, but is found in nearly every gaming system. The desire to beat the game is fed as a player ‘levels up,’ or finds the next hidden clue.
- **Role-Playing**
Role-playing games allow players to do more than just play – they get to actually create the characters in the game and embark on an adventure that’s somewhat unique to that character. Consequently, there’s an emotional attachment to the character, and the story makes it much harder to stop playing.
- **Discovery**
The exploration or discovery tactic is most often used in role-playing games. This thrill of discovery (even of places that don’t really exist) can be extremely compelling.
- **Relationships**
Online role-playing games allow people to build relationships with other players. For some kids, this online community becomes the place where they’re most accepted, which draws them back again and again.

Another consideration is that some people are more prone to addiction of any kind than others, gaming or otherwise. Kids who are easily bored, have poor relationships with family members, feel like outcasts at school, or tend toward sensation-seeking are more easily drawn into video game addiction because it fills a void and satisfies needs that aren’t met elsewhere.

Though the debate rages on as to whether gaming addiction is a diagnosable disorder, the behaviour undeniably exists. The combination of intentional programming by designers and the predisposition some teens have to addictive behaviour means this is a real issue that parents and teachers should be aware of and take action to prevent.

DOCUMENT 3

A 2014 article about a popular game app

The Candy Crush game app exploits some well-known weaknesses in the human brain to keep us playing.

Candy Crush is played by 93 million people every day, and it makes money through players purchasing new lives and boosters that help them to conquer new levels. All told, half a billion people have downloaded the free app, and King Digital Entertainment, the company behind the phenomenon, reportedly netted 568 million dollars last year alone.

I am on level 140 (not something I'm proud of), even after deleting the app once because I couldn't stop playing. So what is it about this game that makes it so addictive?

First off, it's simple. The premise of Candy Crush is basic enough for a small child – just match three candies of the same colour. Initially, the game allows us to win and pass levels with ease, giving a strong sense of satisfaction. These accomplishments are experienced as mini rewards in our brain, releasing the chemical dopamine and reinforcing our actions by tapping into the same nerve pathways involved in addiction, reinforcing our actions. Despite its reputation as a pleasure chemical, dopamine also plays a crucial role in learning, cementing our behaviours and training us to continue performing them.

If the game remained this easy, however, we'd quickly tire of the jellybeans and gum drops, becoming bored after a couple of binge sessions. But Candy Crush keeps us coming back in several ways. As we play, the game gets harder, the wins (and those bursts of dopamine) becoming more intermittent.

Also, despite what you may think – and what the developers of the game claim – Candy Crush is essentially a game of luck, your success dependent on the array of colours you have randomly been given rather than on your swiping skills. This means that the reward schedule becomes unexpected: we lose more often than we win and we never know when the next triumph will come. Rather than discouraging us from playing, this actually makes the game even more enticing than if we won easily.

Steve Sharman, a PhD student in psychology at the University of Cambridge who researches gambling addiction, explains that the impression that we are in control of a game is key to its addictive nature and is vital when playing a slot machine, for example. "The illusion of control is a crucial element in the maintenance of gambling addiction ... [as it] instills a feeling of skill or control," he says. "There are a number of in-game features [such as the boosters in Candy Crush] that allow players to believe they are affecting the outcome of the game, and in some cases they are, but those instances are rare."

Another feature of the game that strongly affects how we respond is the limit on how much we can play at any given time. Candy Crush effectively puts you into 'time out' after five losses. This means you can never be completely satiated and you are always left wanting more. And by not letting you play, the game actually becomes even more rewarding when you are let back into Candyland. This is also how Candy Crush makes its money, letting you buy back into the game if you're willing to purchase extra lives.

Researchers from Harvard and the University of British Columbia have demonstrated this effect, called hedonic adaptation, in a study using real-life candy bars. Participants were divided into two groups: one was told to abstain from eating chocolate for a week, while the other was given pounds of the stuff and told to go wild. After one week, the participants were brought back into the lab and given a piece of chocolate to savour. The results? Those who had been deprived rated the chocolate as significantly more pleasurable than those who had been able to eat it freely. So it seems the deprivation makes the reward that much sweeter in the end.

Finally, it is no coincidence that the game is played with pieces of candy. Food is often used in gambling games (think of the infamous fruit machine), tying our happy associations and the pleasure we derive from eating into the game.

While there have been a couple of bizarre stories about mums forgetting to pick up their kids from school because they couldn't stop playing the game, for the most part Candy Crush is harmless. You don't ever have to pay if you don't want to, and theoretically you can stop anytime you want.

That said, I'll be deleting the game from my phone ... just as soon as I've reached level 141.

DOCUMENT 4

A selection of comments about issues related to gaming

A. Parents ought to be very worried about their children playing video games because they are physically addictive. The reason they are so addictive is because playing them doubles the amount of dopamine the brain produces. Not only that, but video games are the main cause of adolescent violence. Parents must unite to stop our children becoming game junkies and monsters!
Oliver Jenkins, author of 'Video games – a parent's worst nightmare'

B. Violent video games are teaching our kids to be violent. It is a known fact that we learn by repetition. Allowing children to play violent video games starts to desensitise them at an early age to the effects of violence. These games were originally designed for military training to help soldiers overcome their hesitancy in shooting the enemy. But these games are now being played by teenagers and we only need to look at the number of high school shootings by young people to see that it is having the same effect. They do it on a video game and receive no punishment, so they think that they won't get into any trouble for doing it in the real world.
Margaret Jones, Teacher

C. It is obvious that video games containing violence will have a negative impact on a child's way of thinking. Some people think that watching violence on TV causes violence in young people because it desensitises them to violent behaviour, but this is not the same thing at all. Watching TV is passive, whereas the player is actually the one committing the violent acts in a video game. In the real world, a person would be punished for acting violently towards others, but a video game rewards violence by letting the player move up a level! Therefore, society has a responsibility to protect young people, and the rest of us, from violence in video games.
A concerned parent

D. Banning violent video games would be pointless. I am an eighteen year old male who has played Call of Duty and other shooter games since I was fourteen years old. I have never once truly wanted to head out and legitimately kill someone. The so-called experts say that video games cause violence, but if we ban gaming, teenagers will get bored and find other ways to keep themselves entertained. Before we know it, we'll have children playing on railway tracks and vandalising their own neighbourhoods. I agree that we should do something to control the video games that children play and how often, but banning them is not the answer.
Phillip Woods, 18

E. Violent games teach kids lifelong lessons such as how to survive in a war or how to use guns if we join the army! They can cause some people to be violent, yes, but there are many up-sides to these games too, so it wouldn't be right to ban them altogether. Teachers say that games can damage the way we think, but they just want us to get involved in sports and not everyone is sporty so that's not fair. When I'm older and have kids, I would rather they stay at home and play video games than go outside and get themselves into real danger, with real people.
Daryl, 14

F. It is our right to purchase as we please. Restricting violent video games from the public would cause mass controversy. We buy games consoles so that we can play a variety of games, taking violence out of them will eliminate at least half of the variety. Games like Modern Warfare, Street Fighter, and even the classic Mario will be gone, given the fact that there is violence included. Violent or not, it is only fair that we get to choose for ourselves, and nobody should have the right to rob us of that.
Robbie, 36

DOCUMENT 5

Information taken from the PEGI website

5a The age and content descriptor labels explained:



Some violence in a comical context (typically Bugs Bunny or Tom & Jerry cartoon-like forms of violence) is acceptable. The child should not be able to associate the character on the screen with real-life characters. The game should not contain any sounds or pictures that are likely to scare or frighten young children. No bad language should be heard.



Any game that would normally be rated at 3 but contains some possibly frightening scenes or sounds.



Violence of a slightly more graphic nature towards fantasy characters and/or non-graphic violence towards human-looking characters or recognisable animals. Any bad language in this category must be mild.



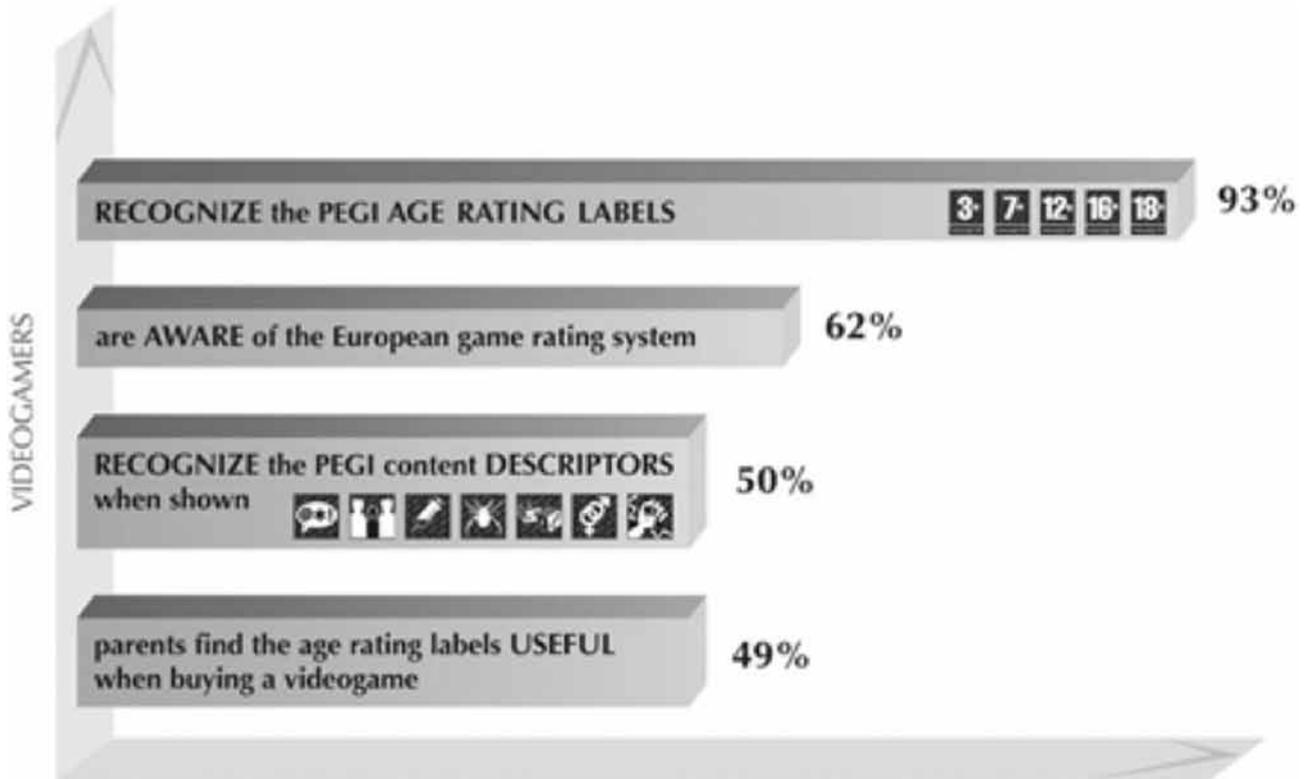
Violence reaches a stage that looks the same as would be expected in real-life. More extreme bad language, the concept of the use of tobacco and drugs and the depiction of criminal activities.



The level of violence reaches a stage where it becomes a depiction of gross violence. This is difficult to define since it can be very subjective in many cases but, in general terms, it can be classed as violence that would make the viewer feel a sense of revulsion.

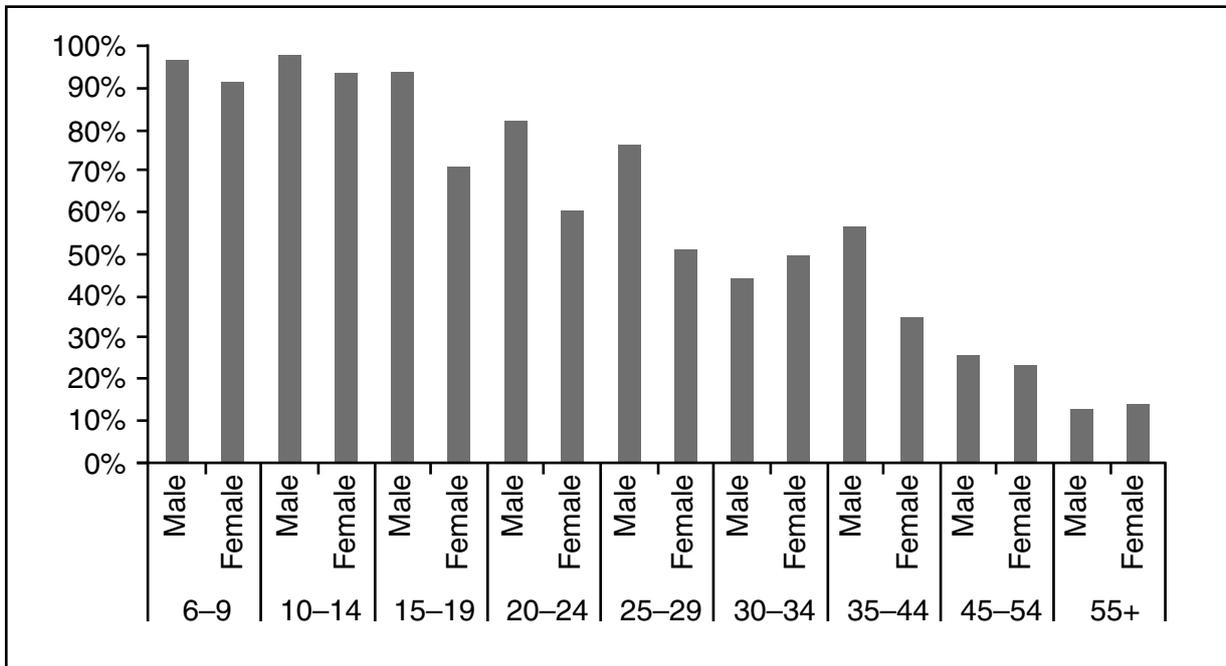
Descriptors shown on the back of the packaging indicate the main reasons why a game has received a particular age rating. There are eight such descriptors: violence, bad language, fear, drugs, sexual, discrimination, gambling and online gameplay with other people.

5b Results of a consumer survey:



DOCUMENT 6

Graph showing the proportion of the UK population who play games, by age group and gender



DOCUMENT 7

A gaming survey carried out by a student

As part of his psychology assignment, Felix carried out a survey of five people who enjoy gaming in his Year 12 class. His questions and results are shown below:

Question no.		Joanna	Sabrina	Patrick	Alessio	Cedric
1	Do you need to game for increasing amounts of time in order to achieve the same level of enjoyment as before?	No	No	Yes	No	Yes
2	Do you think about gaming when you are doing other things?	Yes	No	Yes	No	No
3	Have you lied to friends and/or family members about how often you play?	No	No	Yes	No	No
4	Do you feel restless or irritable when attempting to cut down or stop gaming?	No	No	Yes	No	Yes
5	Have you made repeated unsuccessful efforts to control, cut back, or stop gaming?	No	No	Yes	No	No
6	Do you use gaming as a way of escaping from real-life problems?	Yes	Yes	No	No	Yes
7	Have you ever put gaming before the needs of someone you care about?	No	No	No	No	No
8	Have you ever missed a deadline or rushed homework in order to spend time gaming?	Yes	No	Yes	No	Yes

Based on these results, Felix drew the following conclusion:

Only Patrick and Cedric are addicted to gaming.

Felix wrote an essay based on his findings. His final paragraph appears below:

It is clear that gaming is a big problem among teenagers today. My results show that two in five teenagers are already addicted. Gaming addicts avoid dealing with real-life problems and responsibilities in the same way that alcoholics do, so gaming addiction is just like being an alcoholic. Therefore, gamers should also be able to get help for their addiction on the NHS.

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