

research snapshot

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Do people who play video games refer to harms from their loot box use when they complete problem gambling screens?

What this research is about

Loot boxes are featured in many video games. They contain random prizes that vary in value from common to rare items. People can purchase loot boxes using real money or virtual currency of the game. Concerns have been raised about the similarities between loot boxes and gambling. Past studies have found that people who spend more money on loot boxes have higher scores on problem gambling screens, such as the Problem Gambling Severity Index (PGSI).

Two explanations have been offered for the link between loot boxes and gambling. One is that loot boxes serve as a gateway to gambling. The second is that loot boxes attract people who have gambling problems when they play video games. This study tested a third possibility that people may complete the PGSI referring to the harms from their loot box use, rather than to conventional gambling.

What the researchers did

The researchers used data from three online surveys:

- Dataset 1 included 116 undergraduate students from a Canadian university and 144 participants recruited via Amazon's Mechanical Turk (MTurk). All participants played video games and were familiar with loot boxes.
- Dataset 2 included 2,279 participants who had gambled in the past year. These participants were recruited via MTurk.
- Dataset 3 was a publicly available dataset. It included 1,081 participants who were recruited to be demographically representative of the UK population.

What you need to know

Loot boxes have been linked to problem gambling. One explanation is that loot boxes serve as a gateway to gambling. The second is that loot boxes attract people who have gambling problems when they play video games. The researchers tested a third possibility that people may refer to harms from their loot box use, rather than gambling, when they complete problem gambling screens, such as the Problem Gambling Severity Index (PGSI). They tested this idea using data from three online surveys. Among people who did not gamble, those who purchased loot boxes had higher rates of positive PGSI scores than those who did not. The researchers noted that some PGSI items are less relevant to loot box use, especially item 3 (loss chasing). However, they did not find any difference in the endorsement of this item among people who gambled and people who played video games, or between loot box users and non-users. The researchers concluded that the results provide partial support for their idea.

First, the researchers identified people who did not gamble in datasets 1 and 3. They examined whether there were more people with positive PGSI scores among those who purchased loot boxes than those who did not. The PGSI has nine items. Each item is responded on a Likert scale ranging from "0 = never" to "3 = always". Any response other than "never" was considered a positive PGSI score.

Secondly, the researchers compared people who played video games (dataset 1) and people who gambled (dataset 2) in their endorsement of PGSI

items. Only participants who were recruited via MTurk in dataset 1 were included in this analysis to be demographically similar to participants in dataset 2. The researchers also compared between people who purchased loot boxes and those who did not (dataset 3). Certain items on the PGSI seem less relevant for loot box use, especially item 3, which reflects chasing losses. The researchers examined if rates of endorsement of this item differed across the groups.

What the researchers found

Positive PGSI scores among people who do not gamble

In dataset 1, 15 out of the 38 participants who purchased loot boxes in the past year had positive PGSI scores (39.5%). Among the 30 participants who did not purchase loot boxes, seven had positive PGSI scores (23.3%). The rates of positive PGSI scores did not differ significantly between the two groups.

In dataset 3, 310 participants did not gamble in the past year. Among these participants, 13 purchased loot boxes in the past year and 297 did not. Four participants who purchased loot boxes had positive PGSI scores (30.8%). Among those who did not purchase loot boxes, 24 had positive loot boxes (8.1%). The rates of positive PGSI scores differed significantly between the two groups. These results provide some support that people may be referring to their loot box use when completing the PGSI.

Endorsement of PGSI items

The researchers found that people who gambled (dataset 2) had higher PGSI scores than people who played video games (dataset 1). Among people who gambled, the most endorsed items were item 3 (loss chasing) and item 9 (feeling guilty). Among people who played video games, the most endorsed items were item 9, item 3, and item 1 (bet more than one can afford). In dataset 3, the most endorsed PGSI items were item 3, item 9, and item 1 for both people who purchased loot boxes and those who did not.

Overall, the most endorsed and least endorsed PGSI items were similar between people who gambled and people who played video games, and between loot box users and non-users. No difference was found for the endorsement of item 3. These results do not

support the idea that people may be referring to their loot box use when completing the PGSI.

How you can use this research

This study suggests a need for future research to examine the possibility that people may complete the PGSI referring to their loot box use.

About the researchers

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Citation

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