

# EFFECTS OF VIDEO GAMES

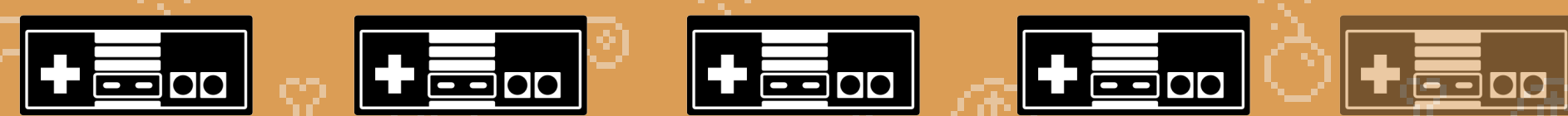
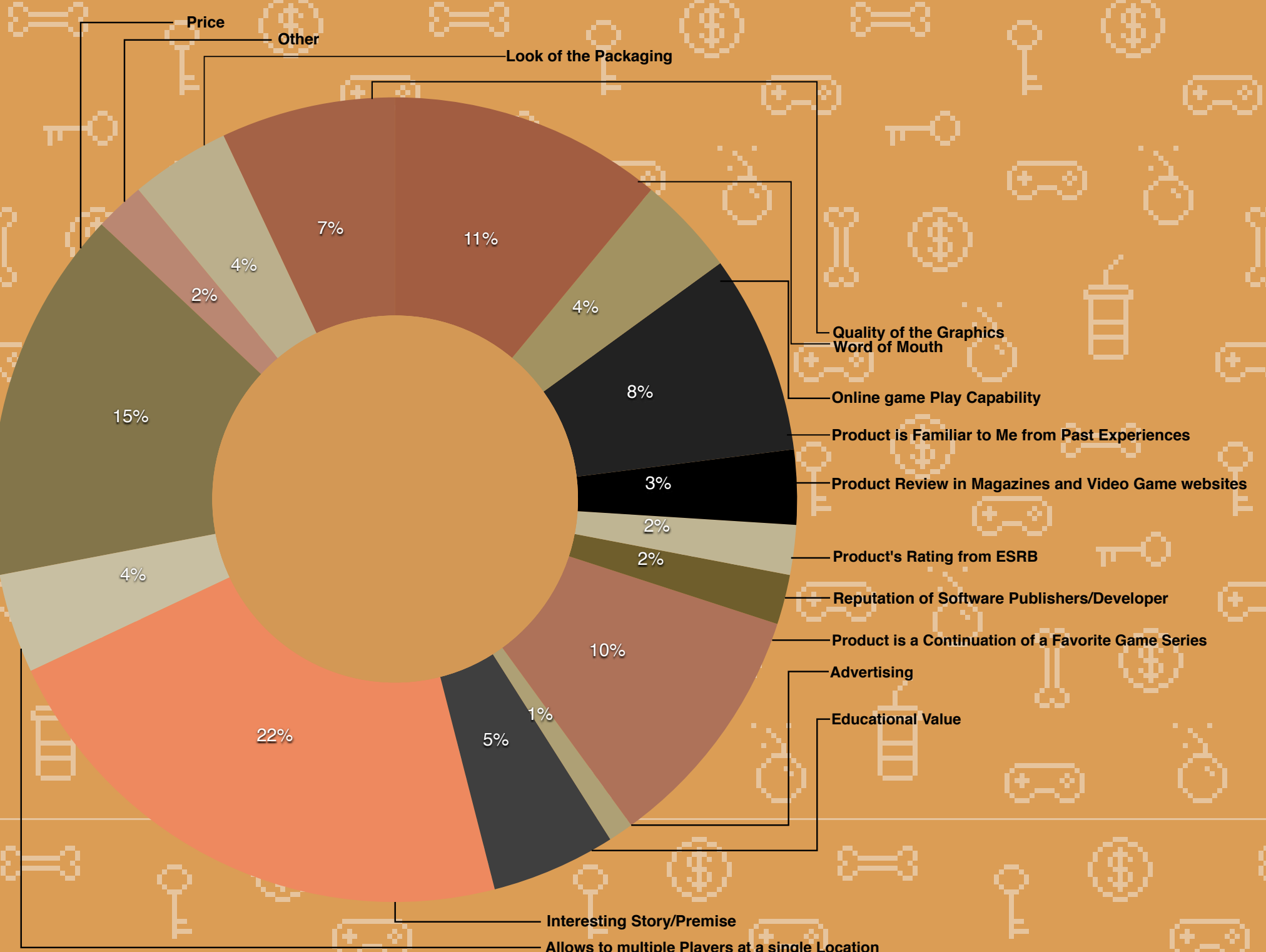
## WHO IS A GAMER?

A "gamer" is someone who plays interactive games, such as video games or tabletop games. The term includes those who do not necessarily consider themselves to be gamers (i.e., casual gamers), as well as those who spend a significant part of their leisure time playing or learning about games.

## HOW MANY PEOPLE PLAY VIDEO GAMES?

1.2 Billion Gamers Playing Globally

### Reason People Buy Video Games



4 OUT OF 5

US households own a device to play video games

MYTH

too much screen time makes eye sight worse

H V Z D S

N C V K D

C Z S H N

O N V S R

K D N R O

Non Action Gamer Vision — Z K C S V

D V O H C

O H V C K — Action Gamer Vision

H Z C K O

N C K H D

Z H O S R

(ESRB)  
The Entertainment Software Rating Board (ESRB) is the non-profit, self-regulatory body that assigns ratings for video games and apps so parents can make informed choices. The ESRB rating system encompasses guidance about age-appropriateness, content, and interactive elements. As part of its self-regulatory role for the video game industry the ESRB also enforces industry-adopted advertising guidelines and helps ensure responsible web and mobile privacy practices under its Privacy Certified program. ESRB was established in 1994 by the Entertainment Software Association.

**MISSION**  
To empower consumers, especially parents, with guidance that allows them to make informed decisions about the age-appropriateness and suitability of video games and apps while holding the video game industry accountable for responsible marketing practices.

**PHILOSOPHY**  
The ESRB rating system was devised after consulting a wide range of child development and academic experts, analyzing other rating systems and, most importantly, listening to parents. ESRB found that what consumers really want in a rating system is

both age-based rating categories as well as concise, impartial information regarding content. Parents felt strongly that a rating system should inform and suggest, not prohibit, and should reflect the product overall rather than quantifying every instance of potentially objectionable content.

Today consumers play games on a variety of platforms and devices, and parental concerns go well beyond content to include other interactive elements like user interactions or the sharing of a user's location and personal information. In fact, parents today tend to place equal importance on guidance about interactive elements as they do about the specific content in a game.

With this philosophy in mind, the ESRB administers a three-part rating system that includes Rating Categories to suggest age-appropriateness, Content Descriptors to indicate what type of content may have triggered the rating and/or may be of interest or concern to the consumer, and Interactive Elements, which advise about user interactions and the sharing of personal information or location. The result is a rating system that is widely adopted by game publishers, supported by retailers, and which is consistently described by parents and opinion leaders as the best entertainment rating system in the US.

Of the games rated by ESRB in 2014:



41%  
received an E  
(Everyone) rating



21%  
received an E10+  
(Everyone 10+) rating



23%  
received a T  
(Teen) rating



14%  
received an M  
(Mature) rating

Playing video games, including violent shooter games, may boost children's learning, health and social skills, according to a review of research on the positive effects of video game play to be published by the American Psychological Association. "Important research has already been conducted for decades on the negative effects of gaming, including addiction, depression and aggression, and we are certainly not suggesting that this should be ignored," said lead author Isabela Granic, PhD, of Radboud University Nijmegen in The Netherlands. "However, to understand the impact of video

games on children's and adolescents' development, a more balanced perspective is needed." While one widely held view maintains playing video games is intellectually lazy, such play actually may strengthen a range of cognitive skills such as spatial navigation, reasoning, memory and perception, according to several studies reviewed in the article. This is particularly true for shooter video games that are often violent, the authors said. A 2013 meta-analysis found that playing shooter video games improved a player's capacity to think about objects in three dimensions, just as well as academic courses to

enhance these same skills, according to the study. "This has critical implications for education and career development, as previous research has established the power of spatial skills for achievement in science, technology, engineering and mathematics," Granic said. This enhanced thinking was not found with playing other types of video games, such as puzzles or role-playing games.

Pre-testing of the survey took place at various times, and using different methods. Purposive sampling was used to test demographic, addiction and videogame structural characteristic questions additionally used limited snowball sampling, as one respondent passed along the survey through one non-gaming community forum, and other respondents sent surveys to friends online. The questionnaire took between 12-15 minutes to complete during pre-testing.

**Instrument**  
Addiction Composite. Level of addiction was measured by adapting the Asheron's Call Addiction

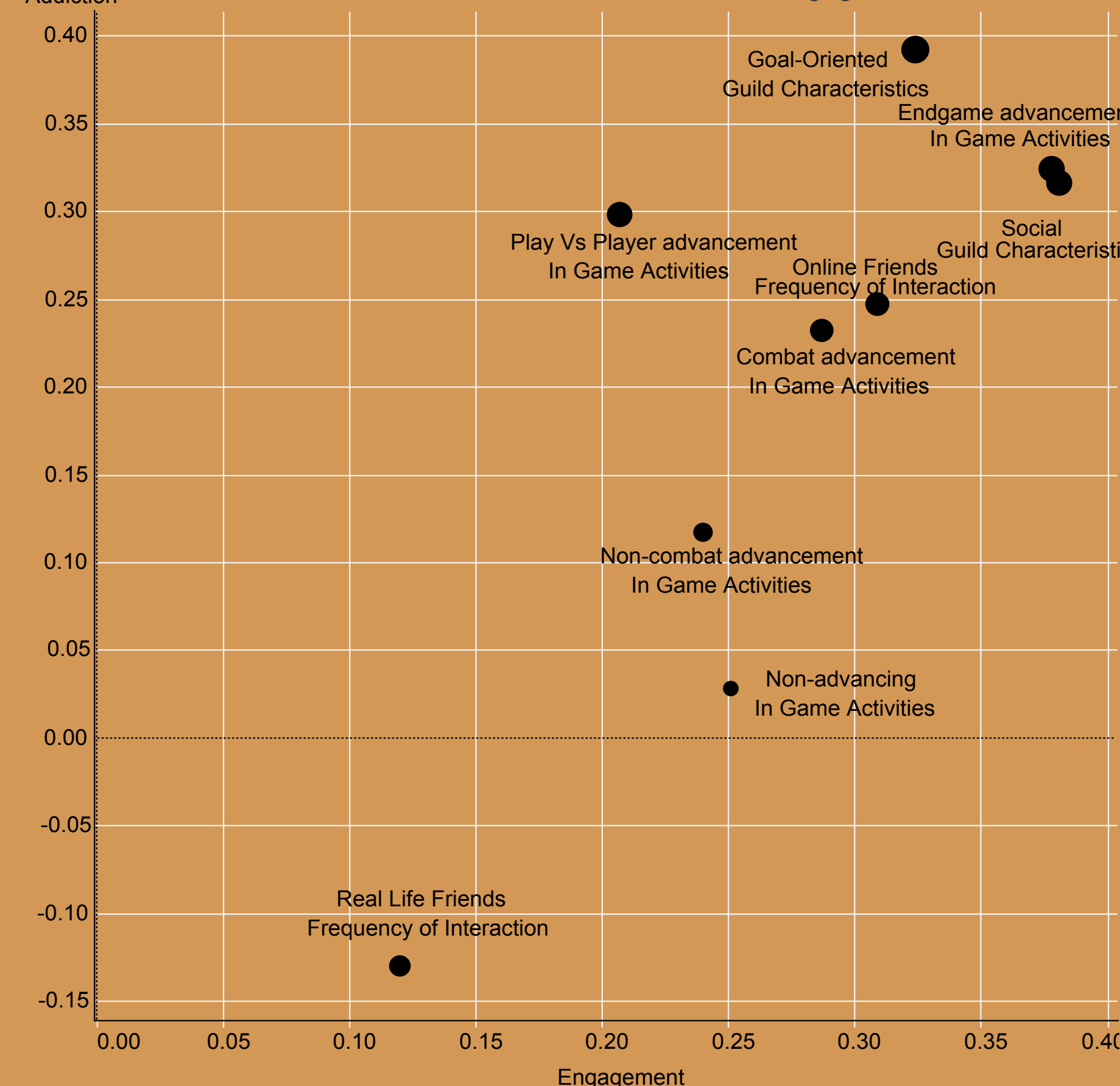
(ACAddiction) measure from Charlton & Danforth, 2004. This scale contains 14 items and showed good reliability in the current study with an alpha of .790. In this scale, participants respond to questions on a 5-point Likert-type scale on which 1 = very strongly disagree, and 5 = very strongly agree. A high score on the Addiction Composite represents high addiction, and a considerable inability to control play.

**Engagement Composite.** Level of engagement was measured by adapting the Asheron's Call Engagement (ACEngagement) measure from Charlton & Danforth, 2004. This scale contains 15 items and shows good reliability in this study with an alpha of .845. In this scale, participants respond to

questions on a 5-point Likert-type scale on which 1 = very strongly disagree, and 5 = very strongly agree. A high score on the Addiction Composite represents high addiction, and a considerable inability to control play.

**Videogame Structural Characteristics.** These characteristics came from a variety of diverse sources, as covered in the concepts section. These scales vary in size, and generally showed acceptable reliability, with alpha scores ranging from .723 to .906. Participants respond to questions on 5-point Likert-type scales which are discussed at length in the concepts section. In this table 0 is the average.

To Show the Correlation Between Addiction and Endgagment in Video Games



This graph shows that there is a relationship between engagement with a game and the level of addiction. The same goes for the level of engagement with real life friends. Only in that case the level of addiction with real life friends is minimal if non exsistant. While spending time with their online friends becomes over powering Unexpected or interesting relationships between addiction and gameplay elements (the varied activities in which players tackle within the game). These questions all dealt with the perceived amount of time a player would spend performing these specific activities (for instance Killing Monsters in order to gain experience) as opposed to other activities. Engaged players seem to perceive themselves, overall, to spend more time performing in-game activities whereas addicted players seemed to estimate their play levels to be lower.

26%  
more steps  
Is an increase that Pokemon Go players take now versus before they started playing.

Ever since Pokemon Go came out for cell phone devices. The game encourages people to walk.

74%  
of K-8 teachers use digital games in the classroom

56%  
of parents say video games positively affect their children

According to federal crime statistics, the rate of juvenile violent crime in the United States is at a 30-year low. Researchers find that people serving time for violent crimes typically consume less media before committing their crimes than the average person in the general population. It's true that young offenders who have committed school shootings in America have also been

game players. But young people in general are more likely to be gamers — 90 percent of boys and 40 percent of girls play. The overwhelming majority of kids who play do NOT commit antisocial acts. According to a 2001 U.S. Surgeon General's report, the strongest risk factors for school shootings centered on mental stability and the quality of home life, not media exposure. The moral panic

over violent video games is doubly harmful. It has led adult authorities to be more suspicious and hostile to many kids who already feel cut off from the system. It also misdirects energy away from eliminating the actual causes of youth violence and allows problems to continue to fester.

