How can we know is a game “good” or “bad”?

• Game industry reviews
  • Usually based on expert reviews (opinions)
  • Reviews are done after games are released
  • Game scores are used to reflect user satisfaction and “fun”
Almost four years have passed since Sony first unveiled Killzone 2, their vastly darker answer to the Halo franchise. In gaming terms, four years is an eternity, but Guerilla Games’ gritty shooter is finally here to deliver a kickass experience that more than rewards us for our patience. Killzone 2, with its face-meltingly intense campaign and robust multiplayer, exceeds the expectations set forth by the original game and the tremendously ambitious E3 2005 trailer. It's still early, but this one already reeks of shooter of the year.

THE VERDICT by Patrick Shaw

Gamers have been waiting for the follow-up to the vastly underrated Killzone for a while now but the folks at Guerrilla used the time wisely, crafting an amazing FPS game that PS3 owners can crow about. With top-notch graphics, fantastic single- and multiplayer modes, Killzone 2 has pretty much everything a PS3 shooter junkie could need.

GamePro Score ★★★★★ User Score ★★★★★

4 average rating from 45 votes
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GamePro Score 100

GameSpot 90

GameInformer 88

“fantastic single- and multiplayer modes...”

“amazing visuals, an intense campaign...”

“The best-looking shooter on the PS3...”
GamePro 100 | “fantastic single- and multiplayer modes...”
GameSpot 90 | “amazing visuals, an intense campaign...”
GameInformer 88 | “the best-looking shooter on the PS3...”
Killzone 2 is the best-looking shooter on the PS3, which puts it in the running for best looking shooter ever. Even better, the game doesn't fall back on its visual splendor, but offers tense, polished gunplay that sets it beside the other great console combat games. The campaign is a machismo-laden chest thumper, with a story that exists largely to move the character from one impressive locale to the next. A frequently intense but occasionally frustrating multiplayer component fleshes out the experience. With the exception of its stunning graphics, Killzone 2 doesn’t do a whole lot that you haven’t seen before in other titles. But what it does do, it does with aplomb.

The first Killzone involved an invasion by the vicious, red-eyed Helghast onto the planet of Vesta. This sequel turns the...

**GamePro** 100

“fantastic single- and multiplayer modes...”

**GameSpot** 90

“amazing visuals, an intense campaign...”

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“The best-looking shooter on the PS3...”
How can we know is a game “good” or “bad”?  

• Formal analysis  
  • Analysis can be done in every stages of game development  
  • Provide only factors for game design  
  • Lack of evaluation method
Game Evaluation

• There are a lot of game evaluation systems and reviews from game industry but little research in academia.

• We created our game evaluation model from collected information of both industry and academia.

• An experiment was conducted to find an evaluation model that can be used to justify and distinguish between “good” and “bad” games.
Evaluation Analysis

- 59 evaluation factors
  - From game industry and game academia
  - From 5 groups (game interface, gameplay, game mechanic, immersion, and social interaction)

- 60 games as the sample
  - From various game genres (action, adventure, role-playing (RPGs), simulation, strategy, and puzzle games)
  - From various game platforms (game consoles, portable gaming devices, computers, PDAs, and mobile phones)
Evaluation Analysis (cont’d)

• Internal evaluation
  • One expert evaluated and gave the scores for all samples.

• External evaluation
  • The overall game scores for all games were taken from a reliable source (www.metacritic.com).
Two years after the Helghast assault on Vekta, the ISA is taking the fight to the enemy’s home world of Helghan. The ISA goal is direct: capture the Helghast leader, Emperor Visari, and bring the Helghast war machine to a halt. Assuming the role of Sev, a battle-hardened veteran and a member of the special forces unit known as the Legion, players lead a group of highly trained soldiers on a mission to take out the Helghast threat. For Sev and his squad, the invasion of Helghan is just the beginning. Tasked with securing Pyrrhus, the Capital City, the team quickly discovers that the Helghast are a formidable enemy on their home planet. Not only have they adjusted to the planet’s hostile conditions, they have also harnesses a source of power they can now use against the ISA. Sev discovers his squad isn’t just fighting enemy forces - their fiercest opponent may be the planet itself. [Sony]

Also On Metacritic
Games:
- Killzone
- Killzone: Liberation

Critics:
- 91 out of 100
- Based on 71 reviews

Users:
- 8.5 out of 10
- Based on 210 votes

Critics:
- Universal Acclaim
- Metascore
- Out of 100
- Based on 71 reviews

Users:
- 8.5 out of 10
- Based on 210 votes

GameShark
Because (it) successfully brings together a compelling single-player campaign and fully realized multiplayer experience, Killzone 2 emerges as a new benchmark for the shooter genre. This is a game that leverages an atmospheric presentation and superb game design for something memorable and lasting. To quibble about a lack of cooperative play through the campaign or the omission of some other feature is to miss the point: Killzone 2 is meant to be a carefully laid out epic. It is a must-have game, a brilliant start for the year, and among the best games of this generation.

MEGamers
Killzone 2’s secret ingredient is the fluidity in gameplay that we have come to enjoy more than its graphical prowess or jaw-dropping visuals. And that’s what gamers have always been about... We’re surprised to see Killzone 2 meet our expectations out of the water with a memorable IP campaign and a stellar MP component. To put it short, this game makes "Gears of War" look like a high school attempt at gaming and that is a HUGE compliment!

PSX Extreme
Ultimately, we have a game that strikes the perfect balance between a single-player and multiplayer experience. Where almost all current FPS games boast a multiplayer component that is far and away better and more satisfying than the single-player experience, Killzone 2 boasts a single-player campaign that is every bit as much fun as the multiplayer - and that is truly a rarity.
Evaluation Analysis (cont’d)

• We apply statistical methods to explore the key factors for game evaluation.
  
  • Descriptive analysis
  
  • Principal component analysis
  
  • Regression Analysis (model creation)
Regression Analysis

• External evaluation scores are used as the independent variables

• 36 factors are used in the regression

• Using backward regression technique to find the game evaluation model

• Adjusted $R^2 = 0.997$ Standard error of estimation is 4.26 (<10%)

• “Do these 10 variables reliably predict the evaluation score?”, ANOVA test showed that the model $p$-value (0.0000) is smaller than the alpha level (0.05); we can conclude, “Yes, these 10 variables reliably predict the evaluation score”
Regression Analysis (cont’d)

Histogram

Dependent Variable: Review scores by experts

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Review scores by experts

Mean = -0.02
Std. Dev. = 0.947
N = 60
# Game Evaluation Model

**PredictedScore** = 5.5A + 1.9B + 1.6C + 2.4D + 1.9E + 4.5F + 4.8G + 6.6H + 3.3I + 3.3J

<table>
<thead>
<tr>
<th>Factors</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Minimize control options</td>
</tr>
<tr>
<td>B</td>
<td>Follow the trends set by the gaming community to shorten the learning curve</td>
</tr>
<tr>
<td>C</td>
<td>Players should be able to save games in different states</td>
</tr>
<tr>
<td>D</td>
<td>Intermediate goals should be clear and presented at the appropriate times</td>
</tr>
<tr>
<td>E</td>
<td>Make game replayable</td>
</tr>
<tr>
<td>F</td>
<td>Should use visual and audio effects to arouse interest</td>
</tr>
<tr>
<td>G</td>
<td>Players should become less aware of their surroundings</td>
</tr>
<tr>
<td>H</td>
<td>Game should increase the players' skill at the appropriate pace as they progress through the game</td>
</tr>
<tr>
<td>I</td>
<td>Allow player to build content</td>
</tr>
<tr>
<td>J</td>
<td>Build as though the world is going on whether your character is there or not</td>
</tr>
</tbody>
</table>
Case Study

• To test the evaluation model, we used the model to evaluate 2 games to see how accurate of the prediction scores compare with the industrial score.

• We picked 2 games to evaluate with our model; Half Life 2 (PC), and The Elder Scrolls IV: Oblivion (Playstation 3).

<table>
<thead>
<tr>
<th>Games</th>
<th>Predicted score</th>
<th>Industrial score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Half Life 2</td>
<td>98.4</td>
<td>96</td>
</tr>
<tr>
<td>The Elder Scrolls IV: Oblivion</td>
<td>96.5</td>
<td>93</td>
</tr>
</tbody>
</table>
Questions ?