

継続したゲームプレイからの離 脱理由に関する調査分析

Survey analysis on reasons for dropout
from continuous gameplay

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Motivation

- The motivation is to understand why people quit games in order to create more engaging games.
- Online games aim to keep players engaged for longer periods to increase revenue. Releasing new content and hosting events are effective but costly.
- If the game itself is enjoyable enough to make players stay longer, it becomes easier.

Method

Two surveys were conducted:

- The first survey aimed to identify potential reasons why people quit games.
- In the second survey, participants were asked to select all dropout reasons obtained in the first survey that they experienced.

Survey details

First survey

- Started in May 2014
- Announced through blog, Twitter, and Facebook
- Survey content included:
 - Game title
 - Reasons for their game dropout
 - Age group, gender (optional)

Second survey

- From June to September 2015
- Announced through blog, Twitter, Facebook, and gaming news websites
- Survey content included:
 - Checkboxes for the 64 factors obtained from the first survey (can select multiple)
 - Comment (optional)
 - Age group, gender (optional)

Reasons for dropout (1)

14 groups, 64 elements

Group	Elements
Satisfaction	Burnout, Satisfied by Watching, Predictability
Not Fun	Tedious Tasks, Insufficient, Pay-to-Win, Unfair Advantages, Mismatched World, Ineffective In-App Purchases, Slow Progression, Friends Quitting, Unreasonable, Unexpected, Parameters, Poor AI
Disgust	Lack of Explanation, Complex Controls, Insufficient Guidance, Community, Complex Content, Evolving Boss
Discomfort	Discomfort, Interpersonal Relationships, Controls, Excessive Notifications, Poor UI, Gory and Grotesque, Disliked Things, Spoilers, Shock
Pointless	Wasteful Spending, Long Hours, Low Probability, Luck-based
Bothersome	Repetition, Time Management, Hardware Setup, Excessive Chores, Do-Overs
Unexpected	Wrong Choices, Unfinished Tasks, Forced Choices, Sparse Online Community, Malfunctions, Physical Limitations

Reasons for dropout (2)

Group	Elements
Limitations	High Difficulty, Strong Enemies, Hardcore Players, Skill Gap, New Game, Matchmaking
Impossible	Fatigue, Negative Impact, Solo Play, Giving Up, Motion Sickness, Too Scary
Forgetting	Gap, Other Purposes
Habit Change	Embarrassment
Goal Achievement	Personal Goals
Stagnation	Intentional Stagnation
Uncontrollable	Life Changes, Environmental Loss

Dropout rates in different genders and age groups

Gender \ Age	Under 20	20s	30s	40s	Over 50	Overall
Male	15.9	19.7	19.5	19.0	13.3	19.1
Female	18.6	18.9	17.0	19.1	14.1	18.1
Overall	16.8	19.4	18.7	19.0	13.8	18.8

Dropout rate = (the number of ticked checkboxes / 64) / (the number of people)

- Overall, females have slightly lower dropout rates, but there are variations across different age groups.
- Under 20 and over 50 age groups show lower average dropout rates.
 - Economic reasons may contribute to lower dropout rates among younger players.
 - Older players tend to have higher tolerance for frustration and prefer familiar games.

Top 15 Reasons for Dropout

Gap	60.7%
Life Changes	55.4%
Tedious Tasks	51.1%
Discomfort	38.9%
Insufficient	35.1%
High Difficulty	34.1%
Pay-to-Win	33.8%
Fatigue	31.6%

Environmental Loss	30.5%
Repetition	30.5%
Strong Enemies	29.6%
Hardcore Players	29.5%
Personal Goals	28.1%
Time Management	25.0%
Unfair Advantages	24.3%

The top two reasons are Gap and Life Changes, which are unrelated to the game itself.

Notable reasons for dropout by gender and age

“**Dropout degree**” was used to compare dropout rate with different groups.

$$\text{Dropout degree} := \frac{\text{Dropout rate among the group due to the dropout factor}}{\text{Dropout rate among the group}}$$

Notable Reasons for Dropout by gender

- Male

- Comments suggest that "Personal Goals" often lead to players quitting after achieving their desired objectives.
- Factors such as "Skill Gaps," "Matchmaking," and "Parameters" indicate a tendency to disengage when unable to achieve victory or success.

- Female

- The presence of "High Difficulty" and "Strong Enemies" suggests that females have a desire for concrete experiences of success.
- Factors like "Gap," "Life Changes," "Burnout," and "Other Purposes" indicate that they have less attachment to continuing playing games.
- The presence of "Too Scary" and "Shock" suggests a tendency to perceive strong stimuli as unpleasant.

Notable Reasons for Dropout Among Male

Factor	Male Dropout Degree	Female Dropout Degree	Difference
Personal Goals	12.5	1.3	11.2
Insufficient	18.7	10.2	8.5
Discomfort	22.4	14.0	8.4
Skill Gap	6.6	-0.6	7.2
Repetition	13.3	7.3	6.0
Unfair Advantages	7.0	1.4	5.6
Lack of Explanation	5.5	0.4	5.0

Factor	Male Dropout Degree	Female Dropout Degree	Difference
Sparse Online Community	-9.0	-13.1	4.2
Long Hours	5.1	1.0	4.1
Parameters	-8.6	-12.7	4.1
Wasteful Spending	4.9	1.2	3.7
Slow Progression	-4.6	-8.0	3.4
Lack of Explanation	-9.6	-13.0	3.4
Poor AI	-10.9	-14.1	3.2

Notable Reasons for Dropout Among Female

Factor	Female Dropout Degree	Male Dropout Degree	Difference
High Difficulty	23.3	12.1	11.2
Too Scary	-1.8	-10.0	8.2
Fatigue	18.2	10.6	7.6
Strong Enemy	16.2	8.6	7.6
Gap	47.1	39.8	7.2
Motion Sickness	2.8	-3.6	6.4
Mismatched World	8.6	2.6	6.0

Factor	Female Dropout Degree	Male Dropout Degree	Difference
Intentional Stagnation	-0.7	-6.5	5.8
Physical Limitations	1.7	-3.4	5.2
Life Changes	40.2	35.2	5.1
Satisfied by Watching	0.1	-4.8	5.0
Burnout	4.1	-0.7	4.8
Shock	-13.0	-17.2	4.3
Environmental Loss	14.6	10.4	4.1

Increasing Trend with Age

There is a positive correlation between age groups and dropout rates for the following factors:

- “Physical Limitations”, “Motion Sickness”, “Fatigue” may be due to declining physical abilities.

Factors	under 20	20s	30s	40s	over 50	correlation coefficient	slope
Physical Limitations	-7.4	-4.9	-2.5	1.6	15.1	0.41	5.1%pt
Motion Sickness	-8.5	-6.7	1.6	0.2	3.5	0.93	3.1%pt
Fatigue	8.2	12.8	11.4	14.7	18.9	0.15	2.3%pt

- “High Difficulty”, “Giving Up”, “Unreasonable” could be linked to decreased gaming skills with age.

High Difficulty	14.5	11.6	13.5	21.1	26.6	0.43	3.4%pt
Giving Up	-4.3	-0.3	0.0	3.5	5.4	0.38	2.3%pt
Unreasonable	-11.6	-8.2	-6.0	-10.3	-0.3	0.38	2.0%pt

Decreasing Trend with Age

There is a negative correlation between age groups and dropout rates for the following factors:

Factors	under 20	20s	30s	40s	over 50	correlation coefficient	slope
Tedious Tasks	36.3	36.8	31.2	28.5	22.7	-0.67	-3.5%pt
Pay-to-Win	27.0	16.7	11.6	15.9	11.2	-0.80	-3.2%pt
Personal Goals	14.5	10.6	8.6	8.6	1.6	-0.48	-2.8%pt
Low Probabilities	3.0	1.1	-0.5	-4.2	-8.0	-0.47	-2.7%pt
Burnout	10.3	5.1	-1.8	-3.0	1.6	-0.79	-2.6%pt
Repetition	19.7	10.8	11.1	12.4	7.4	-0.16	-2.3%pt

- As age increases, there is a higher tolerance for "Repetition" and "Tedious Tasks."
- The decreasing dropout rates for "Pay-to-Win" and "Low Probabilities" indicate increased financial stability with age.
- Older age groups show fewer instances of dropout after extensive play, as seen by the decrease in factors like "Personal Goals" and "Burnout."

Conclusion

- From a survey conducted with over 2000 respondents, the reasons for dropout were analyzed based on different factors such as specific elements, gender, and age groups.
- However, there are some limitations to consider.
 - The survey was limited to Japan.
 - Participants who have never played horror games would not be applicable to the "too scary" category. There may be differences in the number of applicable participants in each factors.

Thank you for your attention