ISRCTN14757739 https://doi.org/10.1186/ISRCTN14757739

# Open-world games, nostalgia, and overall happiness in life

**Submission date**
29/04/2025

**Recruitment status**
No longer recruiting

**Registration date**
30/04/2025

**Overall study status**
Completed

**Last Edited**
04/08/2025

**Condition category**
Mental and Behavioural Disorders

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[X] Results
[ ] Individual participant data

**Plain English summary of protocol**
Background and study aims
This study aims to examine the extent to which open-world games, such as The Legend of Zelda: Breath of the Wild, and nostalgia, evoked by Studio Ghibli movies, such as Totoro and Kiki's Delivery Service, affect postgraduate students' sense of exploration, calmness, mastery and skill, purpose and meaning and, ultimately, happiness in life.

Who can participate?
Adult full-time postgraduate students

What does the study involve?
A controlled laboratory experiment was conducted, employing a 2 (Playing an open-world game vs. no open-world game) × 2 (Nostalgia vs. no nostalgia) between-subjects design. Study participants were randomly assigned to the study's four conditions and answered a brief questionnaire, examining their sense of exploration, feeling of calm, mastery and skill, purpose and meaning, and, ultimately, happiness in life.

What are the possible benefits and risks of participating?
No possible benefits or risks were identified

Where is the study run from?
The study is run from Imperial College London, UK, and held at Doshisha University, Japan.

When is the study starting and how long is it expected to run for?
Mid to the end of April 2025

Who is funding the study?
Investigator initiated and funded

Who is the main contact?
Prof Andreas B. Eisingerich, a.eisingerich@imperial.ac.uk

## Contact information

### Type(s)
Public, Scientific, Principal investigator


### Contact name
Prof Andreas Eisingerich

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## Additional identifiers

### Protocol serial number
219867

## Study information

### Scientific Title
Examining the effects of playing open-world games and nostalgia on happiness

### Study objectives
Open-world games and nostalgia impact happiness

### Ethics approval required
Ethics approval required

### Ethics approval(s)
Approved 14/04/2025, Kyushu Sangyo University Ethics Committee (2-3-1 Matsukadai Higashi-ku, Fukuoka, 813-8503, Japan; +81926735266; sangaku@ml.kyusan-u.ac.jp), ref: 2024-0017

### Primary study design
Interventional

### Study design
2 x 2 between-subject experimental design

### Study type(s)
Quality of life

### Health condition(s) or problem(s) studied
Overall life happiness of postgraduate students

## Interventions

This study employed a 2 (Playing an open-world game vs. no open-world game) × 2 (Nostalgia vs. no nostalgia) between-subject experimental design. All study participants were randomly allocated to one of the four study conditions, using a random 1-4 number generator (Condition 1: Playing an open-world game + nostalgia; Condition 2: Playing an open-world game + no nostalgia; Condition 3: No open-world game + nostalgia; Condition 4 (control group): No open-world game + no nostalgia). The study was conducted in a lab experimental setting on a university campus. More specifically, in Condition 1, participants were invited to spend 30 minutes playing The Legend of Zelda: Breath of the Wild on the Nintendo Switch in handheld mode. After 30 minutes of video game play, participants were invited to watch a brief seven minute clip from a Studio Ghibli film (randomly assigned, so that some participants watched My Neighbor Totor and others watched Kiki's Delivery Service). Finally, study participants completed a brief questionnaire. In Condition 2, participants were invited to spend 30 minutes playing the open-world game as in Condition 1. After having played the game for 30 minutes, participants in Condition 2 completed the brief questionnaire. In Condition 3, participants were randomly allocated to either watch a brief seven minute clip from Studio Ghibli's My Neighbor Totoro or Kiki's Delivery service and subsequently complete a brief questionnaire. Finally, in Condition 4 (control group), participants simply completed the brief questionnaire. As part of the study, univariate and bootstrapping-based moderated mediation analysis were conducted with 5,000 resamples.

## Intervention Type

Behavioural

## Primary outcome(s)

Self-expressed life happiness was measured across all four study conditions using a brief questionnaire with four Likert-scale measurement items (1 = strongly disagree, 9 = strongly agree), after participants had played Zelda and watched the Studio Ghibli film clip (Condition 1), after playing Zelda (Condition 2), after watching the Studio Ghibli film clip (Condition 3), and upon starting the study (Condition 4):

1. "I feel grateful for the good things in my life."
2. "I am satisfied with the overall direction of my life and look forward to what lies ahead."
3. "Overall, I would describe myself as a happy person."
4. "I generally feel a sense of peace and contentment when I think about my life as a whole."

## Key secondary outcome(s)

Self-expressed sense of exploration, feeling of calm, mastery and skill, purpose/meaning in life were measured using the following measurement items after participants had indicated their happiness in life:

1. Exploration was measured using 3 items:

"I appreciate seeking out new experiences, even if they feel unfamiliar or slightly uncomfortable at first."
"I view my life as an adventure that lies ahead, filled with possibilities and opportunities."
"I view each day as a chance to discover something new."

2. Sense of calm was measured with the following three items:

"I feel calm and collected in my daily life."
"I am feeling angry about a lot of things in my life." (reverse coded)
"I generally feel upset." (reverse coded)

3. Sense of mastery and skill was measured using the following three items:

"I can find solutions when I face difficulties in my life."
"I believe I am well equipped to navigate life's day-to-day challenges."

“I have the necessary skills to master life.”
4. Sense of purpose/meaning in life was measured using the following three items:
“I feel my life contributes to something larger than myself.”
“I experience a deep sense of fulfilment when I think about the path I am on.”
“Overall, I view my life as meaningful and purposeful.”

### Completion date
25/04/2025

## Eligibility

### Key inclusion criteria
Full-time postgraduate student

### Participant type(s)
Learner/student

### Healthy volunteers allowed
No

### Age group
Mixed

### Lower age limit
18 Years

### Upper age limit
80 Years

### Sex
All

### Total final enrolment
518

### Key exclusion criteria
Participants had to be full-time students

### Date of first enrolment
14/04/2025

### Date of final enrolment
25/04/2025

## Locations

### Countries of recruitment
Japan

**Study participating centre**
**Doshisha University**
Kamigyo Ward
Kyoto
Japan
602-0898

# Sponsor information

**Organisation**
Kyushu Sangyo University

**ROR**
https://ror.org/01wqrpc44

# Funder(s)

**Funder type**
Other

**Funder Name**
Investigator initiated and funded

# Results and Publications

**Individual participant data (IPD) sharing plan**
The datasets generated during and/or analysed during the current study are/will be available upon request from Prof Andreas B. Eisingerich, a.eisingerich@imperial.ac.uk

**IPD sharing plan summary**
Available on request

**Study outputs**

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---|---|---|---|---|---|
| Results article | | 01/08/2025 | 04/08/2025 | Yes | No |