

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

Submission date 29/04/2025	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 30/04/2025	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
Last Edited 04/08/2025	Condition category Mental and Behavioural Disorders	<input type="checkbox"/> 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

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Additional identifiers**EudraCT/CTIS number**

Nil known

IRAS number**ClinicalTrials.gov number**

Nil known

Secondary identifying numbers

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

Study design

2 x 2 between-subject experimental design

Primary study design

Interventional

Secondary study design

Randomised controlled trial

Study setting(s)

Internet/virtual, University/medical school/dental school

Study type(s)

Quality of life

Participant information sheet

Not available in web format, please use contact details to request a participant information sheet

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 Totoro 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 measure

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."

Secondary outcome measures

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."

Overall study start date

14/04/2025

Completion date

25/04/2025

Eligibility

Key inclusion criteria

Full-time postgraduate student

Participant type(s)

Learner/student

Age group

Mixed

Lower age limit

18 Years

Upper age limit

80 Years

Sex

Both

Target number of participants

500

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

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Sponsor information

Organisation

Kyushu Sangyo University

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Sponsor type

University/education

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ROR

<https://ror.org/01wqrpc44>

Funder(s)

Funder type

Other

Funder Name

Investigator initiated and funded

Results and Publications

Publication and dissemination plan

We aim to make the study results as widely and publicly available as possible. Thus, we aim to publish the study and its findings in an open-source international medical journal such as JMIR (Journal of Medical Internet Research).

Intention to publish date

01/08/2025

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