Register

Study Information

Title

Provide the working title of your study. It may be the same title that you submit for publication of your final manuscript, but it is not a requirement.

The Effect of Daily Gym Classes on Health

Authors

Anna Bárdits

Description

Please give a brief description of your study, including some background, the purpose of the study, or broad research questions.

Hypotheses

List specific, concise, and testable hypotheses. Please state if the hypotheses are directional or non-directional. If directional,

This study analyzes the effects of daily gym classes introduced in Hungary in the 2012/2013 schoolyear. Specifically I want to assess if the policy had a positive effect on health of the students. The policy was introduced in a phasing-in system for 1st 5th and 9th graders. This created a quasi experimental setting: e.g. someone who happened to be a 9th grader in 2012 had 4 years more of daily gym classes than someone who happened to be a 10th grader.

state the direction. A predicted effect is also appropriate here. If a specific interaction or moderation is important to your research, you can list that as a separate hypothesis.

The body mass index of students who had more gym classes is smaller on average.
Obesity among students who had more gym classes is less prevalent.

Design Plan

Study type

Please check one of the following statements

Observational Study - Data is collected from study subjects that are not randomly assigned to a treatment. This includes surveys, “natural experiments,” and regression discontinuity designs.

Blinding

Blinding describes who is aware of the experimental manipulations within a study. Mark all that apply.

No blinding is involved in this study.

Is there any additional blinding in this study?

Blinding (Other)

Study design

Describe your study design. Examples include two-group, factorial, randomized block, and repeated measures. Is it a between (unpaired), within-subject (paired), or mixed design? Describe any counterbalancing required. Typical study designs for observation studies include cohort, cross sectional, and case-control studies.

The study desing depends on the available data.
I will have a panel of schools
I might have access to repeated cross sectional data/ panel data of students

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Randomization

If you are doing a randomized study, how will you randomize, and at what level?

Sampling Plan

Existing Data

Preregistration is designed to make clear the distinction between confirmatory tests, specified prior to seeing the data, and exploratory analyses conducted after observing the data. Therefore, creating a research plan in which existing data will be used presents unique challenges. Please select the description that best describes your situation. Please see https://cos.io/prereg for

more information.

Registration prior to accessing the data

Explanation of existing data

If you indicate that you will be using some data that already exist in this study, please describe the steps you have taken to assure that you are unaware of any patterns or summary statistics in the data. This may include an explanation of how access to the data has been limited, who has observed the data, or how you have avoided observing any analysis of the specific data you will use in your study.

Netfit
Competencies

Data collection procedures

Please describe the process by which you will collect your data. If you are using human subjects, this should include the population from which you obtain subjects, recruitment efforts, payment for participation, how subjects will be selected for eligibility from the initial pool (e.g. inclusion and exclusion rules), and your study timeline. For studies that don't include human subjects, include information about how you will collect samples, duration of data gathering efforts, source or location of samples, or batch numbers you will use.

Data collection for NETFIT - since 2014 it's compulsory for all schools to provide the adta. THe gym teachers do the measurment
Data collection for National Assesment of Basic Competencies - collected yearly, every school in 6th 8th and 10th grade, using a stanadrdized test for maths, reading competencies. Every student answers a survey which includes info on extracurricular activites (e.g. sports) and social background.
Admin 3

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Sample size

Describe the sample size of your study. How many units will be analyzed in the study? This could be the number of people, birds, classrooms, plots, interactions, or countries included. If the units are not individuals, then describe the size requirements for each unit. If you are using a clustered or multilevel design, how many units are you collecting at each level of the analysis?

NETFIT - ? (probably also the universe of Hungarian students)
National Assessment of Basic Competencies - around 90 thousand obseravtions every year per grade

Sample size rationale

This could include a power analysis or an arbitrary constraint such as time, money, or personnel.

Stopping rule

If your data collection procedures do not give you full control over your exact sample size, specify how you will decide when to terminate your data collection.

Variables

Manipulated variables

Describe all variables you plan to manipulate and the levels or treatment arms of each variable. This is not applicable to any observational study.

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Measured variables

Describe each variable that you will measure. This will include outcome measures, as well as any predictors or covariates that you will measure. You do not need to include any variables that you plan on collecting if they are not going to be included in the confirmatory analyses of this study.

The main outcome is health. I don't know yet how can it be measured but main candidates are:
-Body Mass Index
-Body Fat Percentage
-Something like number of days of sickleave? Prescription drugs on high blood pressure?

predictors
-Years of daily gym classes (can be proxyed by year of birth)
-Number of gym classes the individual ever had
-Number of gym classes the individual had during the year before the measurment
-some social inequality aspect?

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Indices

If any measurements are going to be combined into an index (or even a mean), what measures will you use and how will they be combined? Include either a formula or a precise description of your method. If you are using a more complicated statistical method to combine measures (e.g. a factor analysis), you can note that here but describe the exact method in the analysis plan section.

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Analysis Plan

Statistical models

What statistical model will you use to test each hypothesis? Please include the type of model (e.g. ANOVA, multiple regression, SEM, etc) and the specification of the model (this includes each variable that will be included as predictors, outcomes, or covariates). Please specify any interactions, subgroup analyses, pairwise or complex contrasts, or follow-up tests from omnibus tests. If you plan on using any positive controls, negative controls, or manipulation checks you may mention that here. Remember that any test not included here must be noted as an exploratory test in your final article.

Multiple regression.

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Transformations

If you plan on transforming, centering, recoding the data, or will require a coding scheme for categorical variables, please describe that process.

Inference criteria

What criteria will you use to make inferences? Please describe the information you'll use (e.g. specify the p-values, Bayes factors, specific model fit indices), as well as cut-off criterion, where appropriate. Will you be using one or two tailed tests for each of your analyses? If you are comparing multiple conditions or testing multiple hypotheses, will you account for this?

Data exclusion

How will you determine which data points or samples if any to exclude from your analyses? How will outliers be handled? Will you use any awareness check?

Missing data

How will you deal with incomplete or missing data?

Exploratory analysis

If you plan to explore your data set to look for unexpected differences or relationships, you may describe those tests here. An exploratory test is any test where a prediction is not made up front, or there are multiple possible tests that you are going to use. A statistically significant finding in an exploratory test is a great way to form a new confirmatory hypothesis, which could be registered at a later time.

Other

Other

If there is any additional information that you feel needs to be included in your preregistration, please enter it here. Literature cited, disclosures of any related work such as replications or work that uses the same data, or other context that will be helpful for future readers would be appropriate here.

Continue editing (/xsk4c/drafts/5dda98bd2327200021e8cd16/)

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