

(To be filled out in the EDPS' office)

NOTIFICATION FOR PRIOR CHECKING

DATE OF SUBMISSION: 26/11/2013

CASE NUMBER: 2013-1229

INSTITUTION: EUROPEAN COMMISSION

LEGAL BASIS: ARTICLE 27-5 OF THE REGULATION CE N° 45/2001⁽¹⁾

INFORMATION TO BE GIVEN²

1/ NAME AND ADDRESS OF THE CONTROLLER

CONTROLLER : NICHOLL CIARAN

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2/ ORGANISATIONAL PARTS OF THE INSTITUTION OR BODY ENTRUSTED WITH THE PROCESSING OF PERSONAL DATA

THE EUROPEAN COMMISSION

DG JRC - DIRECTORATE I.2

3/ NAME AND DESCRIPTION OF THE PROCESSING

NAME: Conduction of the study "Individual vs. Peer rewards for increasing children's physical activity: A school based study" carried out by the JRC Institute for Health and Consumer Protection (IHCP).

The JRC IHCP mission is to provide scientific and technical support to the EU policies for the protection of the interests of the European citizens in the areas of food, consumer products, chemicals and public health. In accordance with the above mission statement, the IHCP carries out

¹ OJ L 8, 12.01.2001.

studies related to the promotion of physical activity and collective behaviour. This study requires experiments involving selected groups of population. The experiment will be carried out in the form of questionnaires (before and in the end of the study) and the measurement of participants' physical activity (with the use of the accelerometers) in a regular (every week) time base. The participants will be children between 9-11 years old. The study involves collecting of personal data-information (gender, age, nationality, height, weight, friendship level) through the questionnaires, and measurement of Physical activity through accelerometers and therefore constituting the processing operation under Regulation 45/2001. Participation in the field experiments is voluntary and demands the approval both of the parent and child. Additional to this every parent grants his/her consent to the collection of the required personal data on behalf of his/her child. The processing falls under Art. 27. The aim of the particular study " Individual vs. Peer rewards for increasing children's physical activity: A school based study" examines how different incentives schemes based either on individual or on others' performance could actually motivate children to increase their physical activity level. Recent studies (Aharonya et al. 2011, Mani et al. 2013) have demonstrated that using incentives which are connected directly with others' rather than "own" performance has a significant positive impact not only on physical but also on economic or on social performance of individuals or groups. In other words, it is proved that adults will be willing to perform, act or try harder if he/she knows that another person is affected by his performance, action or effort. The moral or psychological (internal) obligation towards others is the leading motivation power behind this scheme and it actually prevails over individual incentives or over direct (external) pressure from others.

Prompted by different commission initiatives that aim to promote physical activity (http://ec.europa.eu/sport/news/201308-comm-initiative-hepa_en.htm) and address childhood obesity (http://ec.europa.eu/health/nutrition_physical_activity/docs/ev20130620_ccl_en.pdf) our study aims to evaluate the possibility of using the latest insights from the field of behavioural economics namely "peer reward incentives (PRI)" for tackling the problem of childhood obesity. In order to be able to study and measure the effect of PRI, we should compare different incentive schemes which are highly related to the interaction among participants. To do so, we will need to 1) measure the performance (physical activity) of the participants 2) to restrict the interaction among the participants in closed groups 3) to provide different incentives and reward participants accordingly 4) to measure and report the effect of these incentives.

1) The measurement of physical activity

The measurement of physical activity is a trivial task with the use of new technologies (accelerometers).

2) Restriction of the interactions

Restriction of the interaction can also be easily organized, especially in the school environment. Students will be asked to form voluntarily their own-desired groups exactly as do when forming teams for playing a team game (appropriate adjustments in the group formation rules will be in place to avoid any exclusion problem).

3) Provision of different incentives and rewards

The third aspect of our study is the most difficult one since some experimental treatments carry the very sensitive element of information privacy, which is taken into serious consideration. In the baseline treatment participants will receive rewards according to their own relative performance. In this scenario, privacy is not an issue since each participant is informed only about his/her own relative performance. However, in other treatments where the PRI is being examined, the

participants will be informed about the relative performance of their peers (only the members of the restricted group). In these situations, the participants will receive rewards according to the performance of other group members. Although the observation of others' performance can be considered as "public" as it can actually be observed by any other participant, especially during the school time, in our study, to ensure fairness and trust in the rewarding scheme, we additionally inform participants about others' performance based on our accelerometers measurements. These can be expressed as physical activity points (PAP). Our action to inform participants about the PAP of others should therefore be interpreted as 1) part of the experimental situation 2) a way to be transparent and objective in the rewarding scheme rather than as the sharing of private data towards third actors. It can actually be considered as an information enhancement rather than an information revealing. Finally, in the end of the study PAPs will be exchanged with some presents (games, sports equipment, etc) from a list of presents which are approved in advance by parents.

Acknowledging in advance the sensitivity of privacy protection we already incorporate in our experimental design all the necessary mechanisms to assure the highest level of privacy. The most important characteristics of our design related to the privacy issue are the following: 1) Participants voluntarily agree on participating in a study in advance, after having been explicitly described the rules of the study. 2) Participants in the very first stage of the study are asked to voluntarily form groups, having received complete information of the purposes of the group and the interchange of information among the group members. It is therefore true that participants are actually exchanging information only with the participants that they wish to. 3) Participants will know from the beginning that at any time of the experiment they can resign, without influencing the group or the study itself (we have developed adequate mechanisms to cope with the resignations and will inform participants in advance). 4) The organization and the conduction of the experiment follow the structure and the spirit of the school team games: Participation is voluntary, groups are formed voluntarily, and the performance is observable, especially by people in the same team. 5) The school boards will also have to authorise the intervention in their schools and we will ensure the closest link possible with the heads of school and teachers and request to be immediately informed should any issues arise.

4) Measurement and report of the effect of the incentives

Finally, the fourth action of our study is a direct consequence of the right implementation of the three previous actions. The provision of a scientific physical activity measurement, the detailed description of the a set of rules defining the formation of groups, the corresponding in each treatment incentive and the information exchange process (when applicable), and the implementation of a clear methodological plan which respects all the privacy rights and is adopted in a voluntary base, guarantees the scientific measurement of the effect of the different incentives.

References:

Nadav Aharonya, Wei Pana, Cory Ipa, Inas Khayala, Alex Pentland "Social fMRI: Investigating and shaping social mechanisms in the real world." *Pervasive and Mobile Computing*, 2011, 7(6): 643–659

Mani, Ankur, Iyad Rahwan, and Alex Pentland. "Inducing Peer Pressure to Promote Cooperation." *Scientific reports* 3 (2013)

.The purpose of the field experiments with the involvement of processing of personal data is to carry out research endeavour aimed at observing phenomena belonging to the IHCP sphere of activity and to record their evolution in time. In line with the mission of the JRC, the results gathered during the studies are then used in assessment of the policy options relating to health and consumer protection.

PROCESSORS:

The collection of this particular study material (questionnaires and PA measurements) will be definitely carried out with the involvement of a processor. The personal data is collected by the teachers and transferred to the JRC IHCP in aggregated and anonymous form. Teachers are actually processors who are given the instruction, the content of the questionnaires, the direction how to conduct the study, and the directions on how to encode the collected data. From the technical point of view, the teachers are responsible for the following actions:

Before the study teachers will be responsible for the following actions:

1. Inform parents about the objectives of the study and take their written consensus for allowing their offspring to participate in the study.
2. Recruit students (9-11 years old) to voluntarily participate to the study.
3. Codify students' names (following JRC general instructions on how to encode data) so that JRC receives always the codified results. Only teachers will have access to all the codes corresponding children's name with children's data. Each child (and his/her parent) will know only his/her personal code, while researchers will always receive data on a codified form.
4. Provide parents with the codified preliminary questionnaires collect them and give the codified information to researchers regarding the age, gender, nationality, weight and height of the students.
5. Provide students with relative information regarding the study and help students to split into groups where applicable.
6. Give extensive instructions to students of how to use the accelerometers.
7. Explain how the PAP-prize-incentives mechanism works when necessary.

During the study, teachers will be responsible for the following actions in a weekly basis:

1. Act as the mediator between students (and their parents) and researchers for explaining any consequent question and solving any resulted problem.
2. Provide accelerometers to the students and recollect them from the students.
3. Deliver the accelerometers to researchers for extracting the data. Accelerometers will also be codified (personal codes will be stuck on the device) according to the researchers' codification system. Researchers will receive the codified accelerometers from the teachers, will extract the data and finally they will deliver the accelerometers back to the teachers.
4. Reallocate the codified accelerometers to the corresponding codified students.
5. Where applicable, announce to each student individually his/her own (or other students' of his/her team) physical activity performance (codified) of the previous week.
6. Where applicable, give students the prizes achieved according to their physical performance.

In the end of the study teachers will be responsible for the following actions:

1. Collect and give back to the researchers the codified accelerometers.
2. Distribute and collect back a (codified) questionnaire to parents about children's height and weight.
3. Where applicable, give students the prizes achieved according to their physical performance.

4. Distribute and collect back a (codified) questionnaire to children for ranking their level of friendship with the other students of the class.

5/ DESCRIPTION OF THE CATEGORY OR CATEGORIES OF DATA SUBJECTS

Children (after receiving parents consensus) willing to participate voluntarily in the study

6/ DESCRIPTION OF THE DATA OR CATEGORIES OF DATA (*including, if applicable, special categories of data (Article 10) and/or origin of data*).

- Parents reported (on behalf of their offspring):

Parents should fill in a questionnaire with the following information:

- Gender of the Child,
- Nationality of the Child,
- Age in months (not precise date of birth) of the child,
- Height (in cm) of the child in the beginning and in the end of the study,
- Weight (in kg) of the child in the beginning and in the end of the study

The above information will be used for having a better statistical control during the analysis of the data. Height and Weight will be measured twice in order to calculate the BMI of the students before and after the study and test for any changes due to the interventions.

- Students reported:

Students will be asked in the beginning of the study (in codified and anonymous way) to rank their "friendship" level with the other students of the study. This information will be used by the researchers in order to depict the social network in the classes.

- Accelerometers:

Accelerometers will be collected back by the teachers and will be delivered to the researchers for them to extract the Physical Activity measurement in a weakly base. The data will be used during the study for measuring the relative performance of the students and rewarding them accordingly the students. This information will also be the main dependent variable of the study measuring the effect of the different incentives in physical activity

7/ INFORMATION TO BE GIVEN TO DATA SUBJECTS

The enclosed Privacy Statement shall be delivered to each data subject.

8/ PROCEDURES TO GRANT RIGHTS OF DATA SUBJECTS

The data subjects (and their parents) can use their rights to access their data held by the controller, at any time. The data subject shall have the right to obtain from the controller the rectification without

delay of inaccurate or incomplete personal data. In order for anonymity to be protected, the teacher will be used once more as a mediator between the data subject and the researchers by asking the provision of the data on behalf of the child

9/ AUTOMATED / MANUAL PROCESSING OPERATION

Each data subject will receive a random code. The only person who will know the correspondence between the code and the name will be the processor/teacher. Both the questionnaires and the accelerometers will be codified and distributed by the teacher to the children with the corresponded code. Teachers will collect the questionnaires and the accelerometers from the students which will be then given to the researchers for extracting the data. In this way, researchers will never be able to correspond the data with students' names, since they will never meet the student carrying or handing in the device or the questionnaire. The codified data is processed in excel sheets allowing to introduce, analyse, update, and delete entries.

10/ STORAGE MEDIA OF DATA

CD ROM and electronic storage media.

11/ LEGAL BASIS AND LAWFULNESS OF THE PROCESSING OPERATION

The mission statement of the JRC IHCP – basic act of the Institute – granting the mandate to carry out the research in the field of health and consumer protection and in particular in the area of the public health policy support. Title XIV of the Treaty on the functioning of the EU, defining the Union's obligations and tasks in the area of the public health. Participation in the field experiments is voluntary. Every parent or legal guardian whose child taking part, grants his/her consent to the collection of the required personal data (Article 5.d of the Regulation 45/2001) on behalf of his offspring.

12/ THE RECIPIENTS OR CATEGORIES OF RECIPIENT TO WHOM THE DATA MIGHT BE DISCLOSED

The recipients of the results of the scientific analysis: JRC IHCP staff.

13/ RETENTION POLICY OF (CATEGORIES OF) PERSONAL DATA

The data will be kept throughout the lifetime of the study (the normal duration of the study will be 6 months). Once the study is completed, they will be used for drafting the study results which will be ready within 6 months after the completion of the study. The personal data with the corresponding encryption keys will be deleted after one year from the completion of the report summarising the study results.

13 A/ TIME LIMIT TO BLOCK/ERASE ON JUSTIFIED LEGITIMATE REQUEST FROM THE DATA SUBJECTS

15 days-time allocated to satisfy the request from individuals who would like to exercise their rights to:

- 1) obtain from the controller the blocking of data,
- 2) ask for erasure of data if their processing is unlawful.

14/ HISTORICAL, STATISTICAL OR SCIENTIFIC PURPOSES

If you store data for longer periods than mentioned above, please specify, if applicable, why the data must be kept under a form which permits identification.

N/A

15/ PROPOSED TRANSFERS OF DATA TO THIRD COUNTRIES OR INTERNATIONAL ORGANISATIONS

N/A

16/ THE PROCESSING OPERATION PRESENTS SPECIFIC RISK WHICH JUSTIFIES PRIOR CHECKING

Article 27.2.(a) Processing of data relating to health and to suspected offenses, offenses, criminal convictions or security measures

Article 27.2.(b) Processing operations intended to evaluate personal aspects relating to the data subject

17/ COMMENTS

N/A

PLACE AND DATE: BRUXELLES, 26.11.2013

DATA PROTECTION OFFICER: RENAUDIERE PHILIPPE

INSTITUTION OR BODY: THE EUROPEAN COMMISSION