



Addiction and Lifestyles in Contemporary Europe: Reframing Addictions Project (ALICE RAP)

Cognitions Website

Deliverable 17.1, Work Package 17

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1. INTRODUCTION

This document describes D17.1; the Cognitions Website and supporting materials. This website is called “MindSurfer.eu” (<https://mindsurfer.eu>).

Via MindSurfer, two main studies will be undertaken:

1. A cross-cultural study of implicit and explicit alcohol- and cannabis-related cognitions in as many countries as possible. Participants complete a short response time task and a set of questionnaires, and receive feedback on their implicit cognitions upon completion.
2. A study of the impact of various cognitive and behavioural re-training strategies on addiction-related attitudes in European youth.

Developments so far have focused on carrying out study 1. Study 1 is aimed to be deployed in multiple successive phases, each including a larger set of countries. On MindSurfer, we currently have deployed the study 1 in its first phase. This phase involves Great Britain, the Netherlands and Italy. During the data acquisition of this phase we can examine the validity of our instruments in a naturalistic sample. Accordingly, the study features some validation measures that are to be removed later. In addition to studying alcohol-related implicit and explicit cognitions, this phase serves to develop and test various related materials and procedures.

For carrying out the first phase of study 1 on the MindSurfer website, we produced the following:

- A multilingual research website and information website
- A parental consent procedure approved by our Ethical Committee
- Deployment procedures for structured and efficient deployment of the study in a country

The next sections describe each of these products in more detail. The final section describes which further developments will be undertaken with the MindSurfer website.

2. WEBSITE FEATURES

Via the website various response time tasks and questionnaires are administered in different European countries. The table below describes some of the features of the website:

Type	Description
Availability	The website will be available until at least March 2016 (the end of the ALICE RAP project). However, the website is aimed to be available for a far longer period.
Reliability	Under normal conditions (no extreme server loads), we aim at a 99.99% uptime, as is the norm for our web-host (Greenhost).
Compatibility	The website should run on most common browsers (Internet Explorer, Firefox, Safari, and Chrome). Efforts have been undertaken to widely support older versions of these browsers. No proprietary plugins (such as Adobe Flash or Inquisit) are required, since all dynamic features are

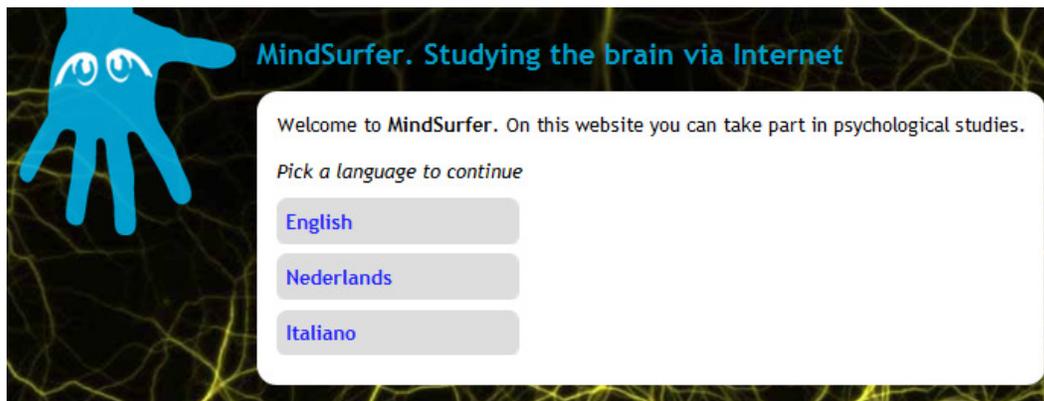
Type	Description
	programmed in JavaScript.
Security	The website is protected against most common types of hacking attacks (such as cross-site scripting and MySQL injection). Secure hosting is provided by Greenhost, whose web-servers are situated at the EvoSwitch datacenter (adhering to the ISO 27001 standard).
Multilingual	All elements of the website that contain text (button, questions, paragraphs, etc.) are available in multiple languages.
Localization	Studies on the website can be adapted to arbitrary participant characteristics. For, instance, materials can be customized to Italian versus British participants, or to men versus women.
Questionnaires	Questionnaires can be administered via the website, supporting a variety of question types, organized in multiple pages.
Response Time Tasks	Response time tasks can be administered; these kinds of tasks present stimuli and record response times (for example: varieties of the Implicit Association Task)
Feedback	The website provides automated feedback on one's implicit drug-related cognitions, using the data acquired from Response Time Tasks.
Information	An information section features a list of local organizations involved in alcohol and drug prevention, education, and intervention

At the time that WP17 was conceptualized, no off-the-shelf software existed that is capable of providing all of the features outlined above. Hence, the website has been developed in-house.

3. WEBSITE STRUCTURE

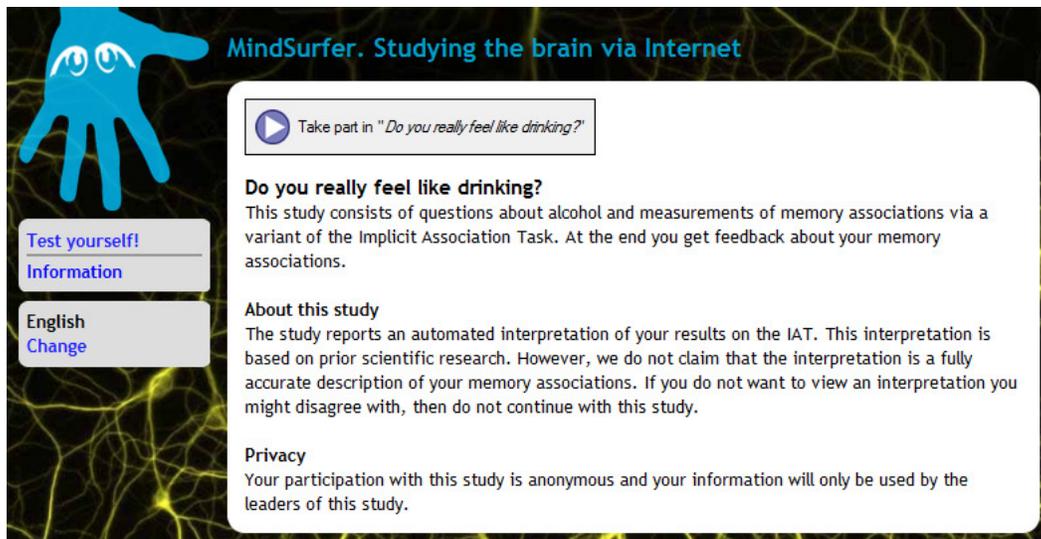
The website consists of the following parts:

- The **information site** is where participants arrive when they visit mindsurfer.eu. On the information site participants first pick their preferred language, after which they get access to the following pages:
 - **Information.** This page gives a short description of the function of MindSurfer, as well as the information section described above.
 - **Study picker.** On this page participants can pick one of the studies that are available in the language they selected. When only one study is available (as is the case at the time of this writing), the participant immediately continues to the launch procedure of this study.



The language selection page on the information site

- Once a study has been picked, the participant continues to the **launch procedure**:
 - First he/she arrives at the **Browser Tester**, which checks if the participants' browser supports (1) JavaScript, (2) Cookies, and (3) AJAX requests. If all three tests are successful, the participant automatically continues to the **Launch Page**. If not, then a message is displayed that explains the problem, including (for most cases) a hyperlink to an external web-page that provides additional information.
 - If the browser tests are successful, next the participant arrives at the **Launch Page**. This page provides some additional information about the selected study and a button via which a popup window can be opened. The web-page for the actual study is opened in this popup window. If the popup is blocked, the participant receives a message with information about the problem.



Experiment launch screen

- The actual study runs inside the popup. This web page is a highly controlled environment, in which questionnaires and response time tasks can be administered. The study extensively tracks and logs the behaviour of the participant in a database. For instance: for each questionnaire item, not only the participants' answer is logged, but also the moment when the question was answered. This approach allows for more finely grained analyses than common survey tools, which may be helpful in finding out in which parts of a study the most drop-outs occur. Consequently, these parts can then be adjusted to minimize attrition.



Introduction 1 2 3 4 5 Results

What is your sex?

What date were you born on?

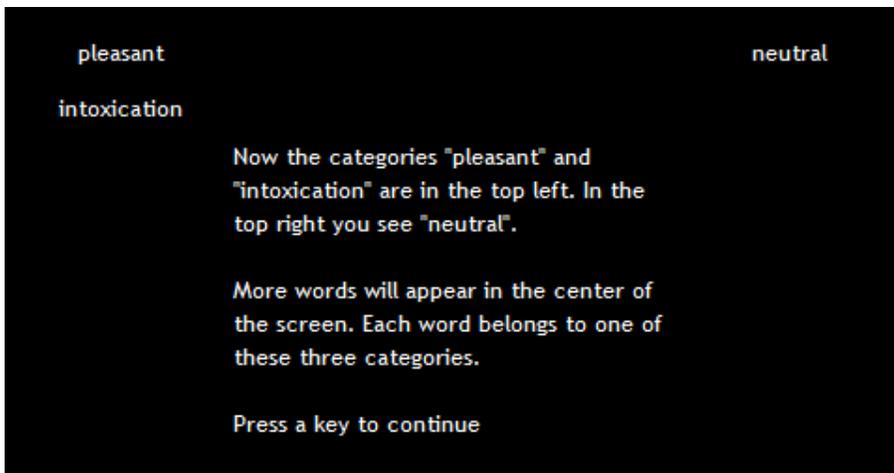
Where do you live?

Have you ever done a test on this website before?

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The screening page in the research environment

- Our first study, “Do you really feel like drinking?”, consists of the following parts, administered in sequence:
 - Briefing
 - Screening Questionnaire
 - Single Target Implicit Association Task (STIAT)
 - Demographics Questionnaire
 - Drinking Behaviour Questionnaire
 - Alcohol Use Disorder Identification Test (AUDIT)
 - Drinking Expectations Questionnaire
 - Stimulus Rating Questionnaire
 - STIAT Feedback
 - Debriefing
- The STIAT measures the extent to which alcohol or intoxication is associated to positive versus neutral, and negative versus neutral valence. Half of participants were tested on their associations with alcohol, and half with intoxication. Participants get feedback on these associations; see the screenshot below.



An instruction screen of the STIAT

IAT Scores

Below you can find an automated interpretation of your IAT scores.

The degree to which you associate intoxication with positive emotions: **None**

The degree to which you associate intoxication with negative emotions: **Strongly**

About the IAT

The Implicit Association Task (IAT) measures to what extent concepts are associated in memory. It does so by looking at the speed with which you responded. If you were quicker in classifying intoxication words together with positive words than you were with neutral words, then the IAT indicates an association of intoxication with positive things. If you were quicker in classifying intoxication words together with negative words than you were with neutral words, then the IAT indicates an association of intoxication with negative things. Depending on the strength of the memory associations, they are categorized as "none", "slightly", "moderately", or "strongly".

About your scores

People may find that their IAT scores correspond with how they perceive themselves. They might not. On average, the IAT seems to be a useful scientific instrument, but IAT scores can be influenced by lots of factors, so your IAT scores may not be completely accurate.

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Example STIAT feedback

- At the administrator interface, researchers can manage studies, upload new translations, and download research data from the database. The backend is protected by a login system which is not reachable via any hyperlink on the public website. The website currently does not feature any login system for participants, which has the added benefit of not needing to store personal information such as e-mail addresses. In future developments, a login system is needed, though we are considering having users be managed by a completely separate system (LOTUS; see the "further development" section).

4. PARENTAL CONSENT

Minors may take part in the study, but to do so, parental consent is required. A parental consent procedure has been developed, and authorized by the Ethical Committee of the University of Amsterdam. This procedure is described below:

- In a screening questionnaire, participants enter their birth date. The screening questionnaire makes no mention of a minimum age to participate.
- Once the participants enter their birth date and continue to the next page, their age is calculated. If the participants are younger than 18, the next page reports that the participant requires consent of a parent or legal guardian in order to continue. A PDF with a parental consent form can be downloaded from the page.
- Parental consent can be provided by doing the following: (1) printing out the parental consent form, (2) having it filled in and signed by a parent, and (3) faxing or e-mailing a digitized version of this form (by having it scanned or photographed) to the researcher.
- Once the parental consent form is received, the researcher e-mails a special URL to the participant. This URL can be used to take part in the experiment, but can only be used for a limited time.

5. DEPLOYMENT PROCEDURES

The first study deployed with MindSurfer only involves three countries. During this deployment, we are developing and testing procedures that enable us to deploy more efficiently in later phases. Below, we list two of such documents to illustrate these procedures:

Country Information Sheet

The Country Information Sheet is a spreadsheet listing relevant information about each included country. Below, as an example we show part of the information sheet of Great Britain:

Localization Not-translated	<i>This section concerns information about a country that does not need translation (such as postcode formats and local organizations)</i>
General	<i>General properties of this country</i>
iso 3166-1 code	gb
official languages	British English
Median income	<i>Median household disposable income in 2007 dollars. See: http://dx.doi.org/10.1787/888932381684</i>
income	25168
Local currency	<i>Symbol and exchange rate (amount of local currency per dollar) with dollar in April 2007. See: http://www.x-rates.com/average/?from=USD&to=GBP&amount=1&year=2007</i>
symbol	£
exchange rate	0,503152
Numbers	<i>Symbols used to indicate thousands and decimal. See: http://docs.oracle.com/cd/E19455-01/806-0169/overview-9/index.html</i>
thousands	,
decimal	.
Postcode format	<i>What does a valid postcode look like. Please provide a reference or a short description.</i>
postcode	http://www.regexlib.com/REDetails.aspx?regexp_id=260 e.g. L3 2ET; L17 8XG;
Date format	<i>What does a date look like? Please provide an example of this date: "19th of june, 2007"</i>
date	19/6/2007

Another spreadsheet lists all the texts that need to be translated. Below we display a small part of the English version of this sheet. Each multilingual element of the website is represented by a term (shown in the left column), and each term has a translation to a local language (shown in the right column).



Term	Translation into local language
test_yourself	Test yourself!
information	Information
site_motto	Studying the brain via Internet
language_name	English
about_us_title	About MindSurfer
about_us_text	MindSurfer is the research website of ADAPT; the Amsterdam Addiction, Development, and Psychopathology Lab, supervised by Reinout Wiers. Via this website we perform psychological studies of addiction and the brain. For questions about this website, send an e-mail to: #[contact_webmaster].
drugs_websites_title	About alcohol and drugs
drugs_websites_text	Do you want to know more about alcohol and drugs? You can find more information on these websites:
pick_an_experiment	Pick a study to take part in
no_experiments_available	Sorry; there are no studies available at the moment.
take_part_in	Take part in "[experiment_name]"

6. WEBSITE PROMOTION

The Country Information Sheet also features a section with local organizations involved in drug education, prevention, and intervention. Furthermore, it features a section with major news outlets and weblogs. This information will be used as the starting point of a search for places that we can use to promote the website. Our main target audience are adolescents aged 16 to 25, which is a demographic category that is very Internet-oriented. Hence, we focus our promotion on getting mentioned on websites and weblogs.

We expect that it is attractive for participants to find out about their implicit cognitions; the "Project Implicit" website of Harvard, which took a similar approach, has had over a million visitors. For minors, the need of parental consent might be a barrier to take part in the study. We hope that because parental consent can be provided via e-mail or fax (instead of the more traditional approach via post), this barrier is lowered. Early results of our first study will provide some insight in this matter.

7. FURTHER DEVELOPMENT

The Mindsurfer website developed with the ability to easily deploy new experiments in new languages and new countries. Hence, the website will frequently be updated. Two important future updates are listed below:

- Based on the experiences with deploying the current study, the supporting materials, such as the translation and country information sheets, will be updated. Next, the current study will be deployed on a larger scale, in an estimated seven or more countries.



- In a later stage of WP17, we will examine retraining of implicit cognitive processes across countries (as has already been done by our group in separate countries). Retraining requires a system for administering repeated measures research. Parallel to the MindSurfer website development, the Technical Support Unit of the University of Amsterdam is developing a system for repeated measures research (LOTUS). LOTUS is developed in such a way that it can coordinate MindSurfer experiments, thus allowing us to limit our own efforts to proper administration of questionnaires and response time tasks. The first LOTUS + MindSurfer pilots will be deployed in April and May 2013.