SF36 Software v1.2.0 Documentation

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Abstract

SF36 is a questionnaires that assess the quality of life (QoL). Through 36 items, one can obtain sub-domains scores (*Physical Functioning, Role-Physical, Bodily-Pain, General Health, Vitality, Social Functioning, Role-Emotional, Mental Health, Reported Health Transition, Mean Current Health*), as well as general domains scores (*Physical, Mental, Global*). The `sf36.py` software does it automatically.

Keywords: SF36, python.

1 What are the requirements

Before using the `sf36.py` software, you need to install **python3** from `https://www.python.org/downloads/`. We also recommend installing the **anaconda** distribution from `https://www.anaconda.com/download/success`, since it contains every needed modules.

You then need to download the repository containing the software from `https://github.com/MatthieuGG/SF36-scores/archive/refs/heads/main.zip`, and uncompress the file.

Now is time for the data preparation. You need to transpose your paper, PDF or online questionnaires into csv files, and put them all in the same folder. Please find an example of original paper SF36 filled at `https://github.com/MatthieuGG/SF36-scores/blob/main/sample.pdf`. You can provide one document per participant, or one document containing them all (one line per participant). See example of file structure in `https://github.com/MatthieuGG/SF36-scores/tree/main/data`. Basically, you should respect this lines and columns organisation and naming:

Table I: Input data structuring

ID	Q1	Q2	Q3a	Q3b	Q3c	Q3d	Q4a	Q4b	Q4c	Q5	Q6	Q7	Q8	Q9a	Q9b	Q9c	Q9d	Q9e	Q9f	Q9g	Q9h	Q9i	Q9j	Q10a	Q10b	Q10c	Q10d	Q10e	Q10f	Q10g	Q10h	Q10i	Q11a	Q11b	Q11c	Q11d
Participant 1																																				
...																																				

2 What does the software do?

The `sf36.py` software first checks that the folder containing the data as well as the data files exist, that the data files are correctly structured, that there is no duplicate, missing values or inconsistent values, and that values range are respected (ex: between 1 and 5 for item 1). If any issue is present in the data, the corresponding print will appear in the terminal. Also, the software re-orders the columns - **please note that the question order may differ between SF36 version**.

The software then calculates the different values for 10 subdomains on [0;100] scales (*"Physical Functioning", "Role-Physical", "Bodily-Pain", "General Health", "Vitality", "Social Functioning", "Role-Emotional", "Mental Health", "Reported Health Transition"*, and *"Mean Current Health"*). It then estimates 3 composite scores: *Physical, Mental,* and *Global*; and saves the results as csv files. The structure of this file is:

Table II: Output data structuring

ID	Q1	...	Q11b	Physical Functioning	Role-Physical	Bodily-Pain	General Health	Vitality	Social Functioning	Role-Emotional	Mental Health	Reported Health Transition	Mean Current Health	PHYSICAL	MENTAL	GLOBAL
Participant 1																
...																

We used the guidelines *"SF36 Health Survey - Manual and Interpretation Guide"* from John E. Ware, Jr. PhD (`https://www.researchgate.net/publication/247503121_SF36_Health_Survey_Manual_and_Interpretation_Guide`).

3 How to use the software?

3.1 Terminal functions and options

From the terminal, you have to go in the folder where the `sf36.py` file is. To do so, use the `cd` function:

```
cd [path where sf36.py is]
```

You can now call the function in the terminal using this line command:

```
python3 sf36.py [-d input path] [-o output path] [-ind]
```

The options are:

- `[-d input path]`: defines the path to your data. If you don't provide one, default is /data/ in the same folder.

- `[-o output path]`: defines the path to your results. If you don't provide one, default is /results/ in the same folder.

- `[-ind]`: saves individual files. If you don't precise this, default is one concatenated file.

3.2 Example of use

- `"cd /Users/Me/Downloads/SF36 scores main"` will go where the sf36.py file is located.

- `"python3 sf36.py"` will use the `"/data"` folder in `"SF36 scores main"` as an input, and create or use the `"/results"` folder in `"SF36 scores main"` for the output, saving one unique csv file for all subjects.

- `"python3 sf36.py -d /Users/Me/Desktop/sf36/myData/ -o /Users/Me/Desktop/sf36/myResults/ -ind"` will use the `"/Users/Me/Desktop/sf36/myData/"` folder as an input, and create or use the `"/Users/Me/Desktop/sf36/myResults/"` folder for the output, saving one csv file per subject.

4 How to cite this work?

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