## DATA PAPER

# Data from 'Cohort Differences in Big Five Personality Factors Over a Period of 25 Years'

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This data set comprises of scores of 8,954 psychology freshmen from the University of Amsterdam (1982-2007) on the 'Vijf PersoonlijkheidsFactoren Test' or 5PFT developed by Elshout and Akkerman, which is an instrument to measure the Big Five personality factors Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience. Data were collected during the yearly freshmen-testing program from 1982-2007 and include scores at the level of 70 items that can be used in studies of psychometrics and the nature of personality.

## (1) Background

The 'Vijf PersoonlijkheidsFactoren Test' or 5PFT was developed by Elshout and Akkerman[1] in the 1970s and is one of the first personality tests that is specifically aimed to measure the Big Five Personality Factors Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience. The 5PFT has been submitted in unaltered form to nearly all psychology freshmen at the University of Amsterdam from the early 1970s to today. Smits et al.[2] studied cohort differences from 1982 to 2007 and the data from that study are hereby made available for others to conduct studies of the (psychometric modelling of) nature of self-reported personality factors.

## (2) Methods

### Sample

Psychology freshmen (N = 9,070) aged 18-25 from the University of Amsterdam from the years 1982-2007 participated for course credit. After exclusion of cases due to excessive missingness (N = 21) or extreme response tendencies (N = 88), the sample size was 8,954. Of these 2,752 were male and 6,202 were female.

[1] Compiled data and conducted analyses of JPSP paper, University of Groningen

[2] Conducted analyses of JPSP paper, University of Amsterdam

[3] Collected data, University of Amsterdam

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[5] Supervised data analyses, University of Groningen

### Materials

The 'Vijf PersoonlijkheidsFactoren Test' or 5PFT[1] is a Dutch personality test composed of 70 items that measure Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience. Each item is scored on a seven-point Likert scale, with 1 meaning that the description of the item completely fails to apply ("absoluut niet" in Dutch) and 7 meaning that the description applies very well ("goed" in Dutch). Each factor is measured with 14 items and reliabilities (Cronbach's Alphas) range .77 to .87[1]. Because of copyright issues, the exact (in Dutch) wording of the items could not be included in the shared data file. Negatively-keyed items have already been reverse-scored in the data file. The file also includes the sum of items for the fives scales, where missing items were scored as zero (i.e., sum of valid items scores).

### Procedures

The 5PFT was administered yearly in a highly similar fashion during sessions of the so-called "Testweek", which takes place in the beginning of the academic year. Respondents were given sufficient time to complete the 5PFT. Tests were administered in a large room with an exam-layout (individual tables) in groups between 100 and 250 students.

### Quality control

As indicated by Smits et al.[2], data from participants with extreme response tendencies and excessive missingness were excluded from the dataset that is published. Exclusion was described as "Students with more than half of the items missing (i.e., 36 items or more) were excluded (excluded: 21 cases; 0.2%). Furthermore, students with extreme response tendencies were excluded (excluded: 88 cases; 1%). [1] Finally, students missing information concerning sex were excluded from analysis (excluded: 7 cases; 0.1%)."[2] Criteria for extreme response tendencies were described in Footnote 1 of Smits et al.[2].

### Ethical issues

Data were collected in accordance with the guidelines for the "Testweek" approved by the ethics committee at the Department of Psychology of the University of Amsterdam. Data were anonymized by using participant numbers and by restricting the sample to include age groups in which there were a sufficient number of participants to preclude the possibility of retrace individuals. Although the "Testweek" is part of the curriculum, freshmen were allowed to complete an alternative assignment if they did not wish to participate. In addition, data from those who did not approve of use of their responses were deleted and the questionnaires destroyed.

## (3) Dataset description

### Object name

Data from 'Cohort Differences in Big Five Personality Factors Over a Period of 25 Years'

### Data type

Primary data (item scores) and processed data (scale scores)

### Format names and versions

The codebook is a .txt file. The data are available as both a .CSV file and a .sav file. The sav file was created with SPSS 18 for Mac.

### Creation dates

01/01/1982 to 31/12/2007

### Dataset Creators

Jan Hogeboom digitalized the paper-and-pencil test materials of the preponderance of cohorts. Marjan Bakker assisted in collation of the data sets from various cohorts. Harrie Vorst and Jelte Wicherts were responsible for data collection and storing of the data. Harrie Vorst supervised first analyses of individual cohorts. Iris Smits, Conor Dolan, and Marieke Timmerman conducted the data cleaning and merging of data files across the cohorts.

**Language**
English

**License**
CC-BY

**Embargo**
None

**Repository location**
https://easy.dans.knaw.nl

**Resource/dataset identifier**
urn:nbn:nl:ui:13-cf2d-zr

**Publication date**
11/10/2012

## (4) Reuse potential

The data from the 5PFT are useful for research of the nature of individual differences in personality. With confirmatory factor analyses alternative models such as the five-factor model and models that feature the general factor of personality can be fitted and compared across cohorts and the sexes. Because of the size of the sample (+8000) and the number and type of items (70 items with a seven-point Likert scale), the data can be subjected to advanced psychometric models, such as factor mixture modelling, and multivariate item response models. The dataset could be enriched by including additional cohorts of freshmen who also took the 5PFT and by adding additional variables of tests and questionnaires that were administered during the Testweek.

## Acknowledgements

## References

**Elshout J J** and **Akkerman A E** 1975 Vijf persoonlijkheidsfaktoren test 5PFT: Handleiding (The Five Personality Factor Test (5PFT): Manual). Nijmegen, The Netherlands: Berkhout B.V.;

**Smits J J, Dolan C V, Vorst H C M, Wicherts J M** and **Timmerman M E** 2011 Cohort differences in big five personality factors over a period of 25 years. *Journal of Personality and Social Psychology,* 100: 1124–1138. DOI: http://dx.doi.org/10.1037/a0022874