GRD 2.1:
An update to GRD for SPSS 27 and above

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Abstract ■ GRD is a popular tool to genenrate random data on the fly. It is most useful in statistic classes where the students can generate with a single short syntax, or using a graphical interface, random data that differs on every run but yet can implement effect sizes, outliers, etc. With the new versions of SPSS (version 27 and above) which is now using a new version of Python, it was necessary to upgrade the extension. Here, GRD 2.1 is presented which works with SPSS 27 and above.

Keywords ■ GRD; generator of random data.. **Tools** ■ SPSS.

Introduction

The extension command GRD (*Generate Random Data*) is a popular tool for generating quickly and easily random data. It generates data that are ready-to-analyze using either simple syntax code (e.g., see Listing 1) or from a simple to use graphical user interface (a dialog accessible in SPSS' Utilities menu).

GRD was created in Harding and Cousineau (2014). The generated data are by default from a normal distribution but any distribution can be provided with additional instructions. An upgrade to GRD (Harding & Cousineau, 2015) had the additional capabilities to include contaminants in the data (e.g., outliers) and can generate multivariate normal data. This last version 2.0 was ported to R (Calderini & Harding, 2019) and is now included in the `superb` package (Cousineau, Goulet, & Harding, 2021). Example of the use of GRD in the classroom was given in Cousineau (2020) and Fournier and Harding (2020).

This new version contains no new functionalities. It was prompted by the fact that IBM, the owner of SPSS, chose to change the Python interpreter shipped with SPSS from 2.7 (SPSS versions 19 to 26) to 3.9 (SPSS versions 27 and above). Note that Python 3.9 does not work on Windows 7.

You can find on this journal's web site the upgraded, version 2.1, GRD. To install in SPSS an extension, you start SPSS, then in the menu *Extensions*, submenu *Install Local Extension Bundle...*, you select the file `GRD21.spe`. This is it, the extension will be installed in SPSS directory, and you do not need to keep the `GRD21.spe` file anymore.

Authors' note

We thank John Gelissen from bringing the need for an upgrade to our attention. The authors have no conflict of interest. This research did not require research fundings.

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Listing 1 ■ Some basic examples of GRD use in syntax

```
* the minimal script followed by a frequency plot.
GRD     /SUBJECTSPERGROUP equal = 1000.
GRAPH   /HISTOGRAM = DV.

* a script with used-defined mean and standard deviation.
GRD
  /SUBJECTSPERGROUP equal = 10000
  /RENAME dv = IQ
  /OVERALL mean = 100 STDDEV = 10.
GRAPH   /HISTOGRAM = IQ.

* a 2 x 3 with 6 independant groups of varying sizes.
GRD
  /SUBJECTSPERGROUP unequal = 10, 8, 10, 6, 4, 6
  /BSFACTORS sexe(2) moment(3)
  /OVERALL mean = 100 stddev = 10.
GRAPH
  /BAR(SIMPLE)=MEAN(DV) BY sexe BY moment
  /INTERVAL CI(95.0).
```

In M.-A. Goulet (Ed.), *Compte rendu du colloque sur l'enseignement des statistiques 2020* (pp. 308–314). doi:10.20982/tqmp.16.4.p308

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