Block 3: Analysing two variables (and sometimes three)

### 3.5.2.6 The COUNT command 2 - Sexism

[Screenshots: SPSS15, last updated: 24 Aug 2011, previous version 1 October 2009]

## Exemplar: <br> Variable to be derived: <br> Source variables:

Fifth form survey fifthx.sav
Negative attitudes to women (Sexism)
V248, V252, V253, V256, V261, V251, V255, V259, V260

COUNT creates additive indices. It counts, for each case, the number of times a specified value or set of values occurs for a variable or variables on a criterion variable list and enters this as the value for a new variable defined by the COUNT command.

The general format is:
COUNT <newvar> = <criterion varlist> ( <value list> )
/ <newvar> = <criterion varlist> ( <value list> ) .
...in which the user has to supply the new variable name(s), the variables to be scanned and the list, including the round brackets, of value(s) to be included in the search. You can create several derived variables within a single COUNT command, provided you stay in the specification field and provided you separate each new specification with a slash '/'.

In the fifth form survey we have already used COUNT to create a new variable STATQUO by counting the number of Tend to Agree or Agree Strongly responses to four items in question Q. 34 (items o,p,q,r) replicated from a scale developed by Himmelweit to measure "attachment to status quo" among teenagers.

CARD 2

Q 34. Do you agree or disagree with the following statements: (Ring the numbers)
Disagree Tend to Tend to Agree
Strongly Disagree Agree Strongly

| b) It is best to be like the others ${ }_{1}$ and not to stand out from the rest. | 2 | 3 | 4 | (75) |
| :---: | :---: | :---: | :---: | :---: |
| b) People who are content with what they have will have a better life than those who are always trying to improve their position. | 2 | 3 | 4 | (76) |
| 1) We are all born to our various social positions and it won't do to change them. | 2 | 3 | 4 | (77) |
| r)The greatest source of happiness ${ }_{1}$ in life is to be satisfied with whatever you have. | 2 | 3 | 4 | (79) |

## Sexism

Question Q. 33 is more complex. It consists of 14 statements measuring opinions about women, some negative, some positive, with which pupils can agree or disagree on a 4-point scale.
(Codes 1-4 on columns 48 to 61 of card 2 read into SPSS using positional naming convention as v248 to v261)

| Q33. | Here are some statements made about women, We would like to know if you agree or disagree with them. (Please put a ring round the number which indicates your answer). |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Dis } \\ & \text { Str } \end{aligned}$ | $\begin{aligned} & \text { oisagree } \\ & \text { Strongly } \end{aligned}$ | Disagree | Agree | Agree <br> Strongly |  |
|  | a) Careers are fine for women but real fulfilment is a home and kids. | 1 | 2 | 3 | 4 | (48) |
|  | b) Women should not expect men to pay for them when dating etc. | 1 | 2 | 3 | 4 | (49) |
|  | c) Half of all top jobs should be reserved for women. | 1 | 2 | 3 | 4 | (50) |
|  | d) It is a good thing that women can become airline pilots, plumbers etc. | 1 | 2 | 3 | 4 | (51) |
|  | e) Women are too emotional. | 1 | 2 | 3 | 4 | (52) |
|  | f) Women are not as ambitious as men. | 1 | 2 | 3 | 4 | (53) |
|  | g) Women are as intelligent as men. | 1 | 2 | 3 | 4. | (54) |
|  | h) Women do not need to be beautitul to be successful | 1 | 2 | 3 | 4 | (55) |
|  | j) Husbands rather than wives should have the final voice in family matters. | 1 | 2 | 3 | 4 | (56) |
|  | k) There is no difference in brainwer between men and women | $n-1$ | 2 | 3 | 4 | (57) |
|  | 1) If women are paid as much as men they shoule pay for themselves when dating etc. | 1 | 2 | 3 | 4 | (58) |
|  | m) Women should get equal pay for doing the same work as men. | 1 | 2 | 3 | 4 | (59) |
|  | n) Beauty contests are degrading to women and should stop. | 1 | 2 | 3 | 4 | (60) |
|  | -) Romantic love is dead | 1 | 2 | 3 | 4 | (61) |

Again, it is possible to construct a crude index of "Sexism" from nine of these items, five of which are negative ( $\mathrm{a}, \mathrm{e}, \mathrm{f}, \mathrm{j}, \mathrm{o}$ ) and four positive ( $\mathrm{d}, \mathrm{h}, \mathrm{m}, \mathrm{n}$ ). To be a sexist a pupil must agree with the negative items ( $\mathrm{a}, \mathrm{e}, \mathrm{f}, \mathrm{j}$ and o ) and disagree with the positive items ( $\mathrm{d}, \mathrm{h}, \mathrm{m}$ and n ). Thus we need to construct an index which counts the number of agreements (codes 3 and 4) with the first set together with the number of disagreements (codes 1 and 2 ) with the second. This will yield a score in the range 0 to 9 where 9 indicates high sexism.

To use COUNT to generate a new variable containing the number of agreements with negative
items ( $\mathrm{a}, \mathrm{e}, \mathrm{f}, \mathrm{j}, \mathrm{o}$ ) and also disagreements with positive items ( $\mathrm{d}, \mathrm{h}, \mathrm{m}, \mathrm{n}$ ) we first need to decide on a name. Remember, variable names in SPSS must begin with a letter. In 1981 they were limited to 8 characters, but now you can have up to 64. However, it's best to keep names short as otherwise the Data Editor gets very unwieldy. Let us call it SEXISM. Next, we have to specify the existing variables to be included in the criterion list for SEXISM. The anti-women items are V248, V252, V253, V256 and V261, and the pro-women items are V251, V255, V259 and V260.

A small table helps:

| New variable name | Variables in criterion list | Values to be counted |
| :---: | :--- | :---: |
| SEXISM | V248, V252, V253, V256, V261 | 3 and 4 |
|  | V251, V255, V259, V260 | 1 and 2 |

The SPSS command is therefore:
COUNT SEXISM = V248 V252 V253 V256 V261 (3, 4) V251 V255 V259 V260 $(1,2)$.
Note the full stop to terminate the command.
This line is a trifle long and so the author's preference in such cases is to break up the command over more lines and tab the sub-commands and specifications inwards to make it easier to edit or spot mistakes, e.g.

```
COUNT SEXISM = V248 V252 V253 V256 V261 (3,4)
    V251 V255 V259 V260 (1,2).
```

This command creates a new variable SEXISM with values in the range 0 to 9 where 9 indicates high sexism (negative attitudes to women).
[NB: You won't actually be able to do this next bit without immediate direct access to SPSS: don't worry just follow the tutorial anyway.]

First we need to access the SPSS saved file for the fifth form survey, so if you haven't already got it open, start by downloading Fifth Form Survey


Click on Open to get ${ }^{1}$ :

| Fif *fifth form.sav [DataSet1] - SPSS Data Editor |  |  |  |  |  |  |  |  |  |  | 可 |
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|  |  |  |  |  |  |  |  |  |  |  |  |
|  | Name | Type | Width | Decimals | Label | Values | Missing | Columns | Align | Measure | ^ |
| 1 | serial | Numeric | 2 | 0 | Serial number | None | None | 8 | Right | Scale |  |
| 2 | v106 | Numeric | 2 | 0 | Q. 1 First Subj | \{1, Human Bi | $-1,23,24$ | 8 | Right | Ordinal |  |
| 3 | v107 | Numeric | 2 | 0 | Q. 1 Second S | \{1, Human Bi | $-1,23,24$ | 8 | Right | Ordinal |  |
| 4 | v108 | Numeric | 2 | 0 | Q. 1 Third Subj | \{1, Human Bi | $-1,23,24$ | 8 | Right | Ordinal |  |
| 5 | v109 | Numeric | 2 | 0 | Q. 1 Fourth Su | \{1, Human Bi | -1,23,24 | 8 | Right | Ordinal |  |
| 6 | v110 | Numeric | 2 | 0 | Q. 2 Anticipate | \{1, 16\}... | -1,23,24 | 8 | Right | Ordinal |  |
| 7 | v111 | Numeric | 2 | 0 | Q. 3 Anticipati | \{1, Yes\}... | -1,23,24 | 8 | Right | Ordinal |  |
| 8 | v112 | Numeric | 2 | 0 | Q. 4 Expected | None | -1 | 8 | Right | Ordinal |  |
| 9 | v114 | Numeric | 2 | 0 | Q. 5 Anticipate | \{1, Profess-ion | -1,23,24 | 8 | Right | Ordinal |  |
| 10 | v116 | Numeric | 2 | 0 | Q. 6 Likelihood | \{1, Not very lik | $-1,23,24$ | 8 | Right | Ordinal |  |
| 11 | v117 | Numeric | 2 | 0 | Q.7a Are girls | \{1, True \}... | -1,23,24 | 8 | Right | Ordinal |  |
| 12 | v118 | Numeric | 2 | 0 | Q 7b Are girls 1 | \{1, True \}... | -1,23,24 | 8 | Right | Ordinal |  |
| 13 | v119 | Numeric | 2 | 0 | Q.17c Boys en | \{1, True \}... | -1,23,24 | 8 | Right | Ordinal |  |
| 14 | v120 | Numeric | 2 | 0 | Q.7d Cookery | \{1, True \}... | -1,23,24 | 8 | Right | Ordinal | $v$ |
| 4. \Data View $\lambda$ Variable View / \|< |  |  |  |  |  |  |  |  |  |  |  |
| SPSS Processor is ready |  |  |  |  |  |  |  |  |  |  |  |

Use the mouse to drag the column separators around and make the display easier to read, then reduce the pane to include only essential basic information:

| Wi *fifth form.sav [DataSet1] - SPSS Data Editor |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
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|  |  |  |  |  |  |  |  |
| Name | Type | Width | Decimals | Label | $V$ alues | Missing | ^ |
| 1 serial | Numeric 2 | 2 | 0 | Serial number of questionnaire | None | None |  |
| 2 V 106 | Numeric 2 | 2 | 0 | Q. 1 First Subject | \{1, Human Biology\}... | -1, 23, 24 |  |
| 3 V 107 | Numeric 2 | 2 | 0 | Q. 1 Second Subject | \{1, Human Biology\}... | -1,23,24 |  |
| 4 v108 | Numeric 2 | 2 | 0 | Q. 1 Third Subject | \{1, Human Biology\}... | -1,23,24 |  |
| 5.109 | Numeric 2 | 2 | 0 | Q. 1 Fourth Subject | \{1, Human Biology\}... | -1, 23, 24 |  |
| 6.1110 | Numeric 2 | 2 | 0 | Q. 2 Anticipated age of leaving school | \{1, 16\}.. | -1, 23, 24 |  |
| 7 V 111 | Numeric 2 | 2 | 0 | Q. 3 Anticipating Further Education | \{1, Yes\}... | -1, 23, 24 |  |
| 8.112 | Numeric 2 | 2 | 0 | Q. 4 Expected Completion of Further Ed | None | -1 |  |
| 9 y 114 | Numeric 2 | 2 | 0 | Q. 5 Anticipated Job | \{1, Profess-ional\}... | -1, 23, 24 |  |
| 10.0116 | Numeric 2 | 2 | 0 | Q. 6 Likelihood of Anticipated Job | \{1, Not very likely\}... | -1,23,24 |  |
| 11 v 117 | Numeric 2 | 2 | 0 | Q.7a Are girls as good at Maths | \{1, True \}... | -1,23,24 |  |
| 12.118 | Numeric 2 | 2 | 0 | Q 7b Are girls less confident | \{1, True\}... | -1,23,24 |  |
| 13 v119 | Numeric 2 | 2 | 0 | Q.17c Boys encouraged to work harder? | \{1, True \}... | -1,23,24 |  |
| 14. 120 | Numeric 2 | 2 | 0 | Q.7d Cookery more important for girls? | \{1, True \}... | -1, 23, 24 | $\checkmark$ |
| 4- Data View $\lambda$ Variable View/ |  |  |  | 1< |  | $\rightarrow$ |  |
| SPS5 Processor is ready |  |  |  |  |  |  |  |

Scroll down to find variables V248 to V261

| W *fifth form.sav [DataSet1] - SPSS Data Editor |  |  |  |  |  |  |  | X |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eile Edit Yiew Data Iransform Analyze Graphs पutilities window Help |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | Name | Type | Width | Decimals | Label | Values | Missing | ^ |
| 111 | v248 | Numeric | 2 | 0 | Q.33a Women's fulfilment is kids | \{1, Strongly disagree\}... | -1, 23, 24 |  |
| 112 | V249 | Numeric | 2 | 0 | Q.33b Women should pay on dates | \{1, Strongly disagree\}... | -1,23,24 |  |
| 113 | $\times 250$ | Numeric | 2 | 0 | Q.33c Half top jobs reserved for women | \{1, Strongly disagree\}... | -1,23,24 |  |
| 114 | *251 | Numeric | 2 | 0 | Q.33d Women in men's jobs | \{1, Strongly disagree\}... | -1,23, 24 |  |
| 115 | v252 | Numeric | 2 | 0 | Q.33e Women too emotional | \{1, Strongly disagree\}... | -1,23,24 |  |
| 116 | v253 | Numeric | 2 | 0 | Q. 33 f Women are not ambitious | \{1, Strongly disagree\}... | -1,23,24 |  |
| 117 | , 254 | Numeric | 2 | 0 | Q.33g Women are not as intelligent | \{1, Strongly disagree\}... | -1,23,24 |  |
| 118 | v255 | Numeric | 2 | 0 | Q.33h Women need to be beautiful | \{1, Strongly disagree\}... | -1,23,24 |  |
| 119 | , 256 | Numeric | 2 | 0 | Q.33j Husbands have final say | \{1, Strongly disagree\}... | -1,23,24 |  |
| 120 | V257 | Numeric | 2 | 0 | Q.33k Equivalent brain power | \{1, Strongly disagree\}... | -1,23,24 |  |
| 121 | v258 | Numeric | 2 | 0 | Q.331 Equal pay so women go Dutch | \{1, Strongly disagree\}... | -1, 23, 24 |  |
| 122 | , 259 | Numeric | 2 | 0 | Q.33m Equal pay for same work | \{1, Strongly disagree\}... | -1,23,24 |  |
| 123 | , 260 | Numeric | 2 | 0 | Q.33n Beauty contests degrading | \{1, Strongly disagree\}... | -1,23,24 |  |
| 124 | v261 | Numeric | 2 | 0 | Q.330 Romantic love is dead | \{1, Strongly disagree\}... | -1, 23, 24 | $\checkmark$ |
| 4 - Data View $\lambda$ Variable View / |  |  |  |  | $1 \leqslant$ |  | - |  |
| SPSS Processor is ready |  |  |  |  |  |  |  |  |

Now you know why positional variable names and informative variable labels are so important!
The variables and question numbers are so much easier to find inside the Data Editor and you can work straight from the original questionnaire to the data set and vice versa.

[^0]To create our new variable STATQUO (attachment to status quo) refer back to the table:

| New variable name | Variables in criterion list | Values to be counted |
| :---: | :---: | :---: |
| SEXISM | V248, V252, V253, V256, V261 |  |
|  | V251, V255, V259, V260 | 3 and 4 |
|  |  | 1 and 2 |

..and also to the general format of the COUNT command:

> COUNT <newvar> = <criterion varlist> ( <value list> )
..where <value list> must contain a single value, a range of values, or several individual values separated by commas.

If you want to use the drop-down menus to create SEXISM feel free to try. In fact, using the menus, you cannot get COUNT to derive a single variable from two criterion lists with different values: you have to create two intermediate variables, one for each list, and then add them together with COMPUTE to get the final score. (See fully worked example on pages 11 -18)

## The syntax way

Our SPSS command is:

$$
\begin{array}{lll}
\text { COUNT } \quad \text { SEXISM }= & \text { V248 V252 V253 V256 V261 }(3,4) \\
& & \text { V251 V255 V259 V260 }(1,2) .
\end{array}
$$

It is possible to generate syntax using PASTE from the SPSS drop-down menus, but it's extremely confusing and tiresome, albeit error free. My preference is to use commands written directly to a syntax file, which is simpler, quicker and much easier to follow and understand.

Go back to the Data editor:

| W\# *ifth form.sav [DataSet1] - SPSS Data Editor |  |  |  |  |  |  |  |  |  |  | X |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | Name | Type | Width | Decimals | Label | Values | Missing | Columns | Align | Measure | ^ |
| 111 | V248 | Numeric | 2 | 0 | Q.33a Women' | \{1, Strongly di | -1,23,24 | 8 | Right | Ordinal |  |
| 112 | V249 | Numeric | 2 | 0 | Q.33b Women | \{1, Strongly di | -1, 23, 24 | 8 | Right | Ordinal |  |
| 113 | V250 | Numeric | 2 | 0 | Q.33c Half top | \{1, Strongly di | -1, 23, 24 | 8 | Right | Ordinal |  |
| 114 | V251 | Numeric | 2 | 0 | Q.33d Women | \{1, Strongly di | -1,23,24 | 8 | Right | Ordinal |  |
| 115 | v252 | Numeric | 2 | 0 | Q.33e Women | \{1, Strongly di | -1, 23, 24 | 8 | Right | Ordinal |  |
| 116 | v253 | Numeric | 2 | 0 | Q.33f Women | \{1, Strongly di | -1, 23, 24 | 8 | Right | Ordinal |  |
| 117 | V254 | Numeric | 2 | 0 | Q. 33 g Women | \{1, Strongly di | -1, 23, 24 | 8 | Right | Ordinal |  |
| 118 | V255 | Numeric | 2 | 0 | Q.33h Women | \{1, Strongly di | -1, 23, 24 | 8 | Right | Ordinal |  |
| 119 | V256 | Numeric | 2 | 0 | Q.33j Husband | \{1, Strongly di | -1, 23, 24 | 8 | Right | Ordinal |  |
| 120 | v257 | Numeric | 2 | 0 | Q.33k Equivale | \{1, Strongly di | -1, 23, 24 | 8 | Right | Ordinal |  |
| 121 | v258 | Numeric | 2 | 0 | Q.331 Equal pa | \{1, Strongly di | -1, 23, 24 | 8 | Right | Ordinal |  |
| 122 | v259 | Numeric | 2 | 0 | Q. 33 m Equal p \{ | \{1, Strongly di | -1, 23, 24 | 8 | Right | Ordinal |  |
| 123 | V260 | Numeric | 2 | 0 | Q.33n Beauty | \{1, Strongly di | -1, 23, 24 | 8 | Right | Ordinal |  |
| 124 | v261 | Numeric | 2 | 0 | Q. 330 Romanti | \{1, Strongly di | -1, 23, 24 | 8 | Right | Ordinal | $v$ |
| 4. Data View $\lambda$ Variable View / |  |  |  |  |  |  |  |  |  |  |  |
| SPSS Processor is ready |  |  |  |  |  |  |  |  |  |  |  |

．．．New
．．．Syntax：


## and type in your command：



Don＇t forget the full stop！Leave the cursor in or on the line and click on Run．．Current or press ［CTRL］＋R to run it．Nothing appears to happen，but if you go back to the data editor：

| Wifith form．sav［DataSet1］－SPSS Data Editor $\quad \square$ |  |  |  |  |  |  |  |  |  |  |  |
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|  | Name | Type | Width | Decimals | Label | Values | Missing | Columns | Align | Measure | ヘ |
| 111 | V248 | Numeric | 2 | 0 | Q．33a Women＇ | \｛1，Strongly di | －1，23， 24 | 8 | Right | Ordinal |  |
| 112 | V249 | Numeric | 2 | 0 | Q．33b Women | \｛1，Strongly di | －1，23， 24 | 8 | Right | Ordinal |  |
| 113 | V250 | Numeric | 2 | 0 | Q．33c Half top | \｛1，Strongly di | －1，23， 24 | 8 | Right | Ordinal |  |
| 114 | v251 | Numeric | 2 | 0 | Q．33d Women | \｛1，Strongly di | －1，23， 24 | 8 | Right | Ordinal |  |
| 115 | V252 | Numeric | 2 | 0 | Q．33e Women | \｛1，Strongly di | －1，23， 24 | 8 | Right | Ordinal |  |
| 116 | V253 | Numeric | 2 | 0 | Q．33f Women | \｛1，Strongly di | －1，23， 24 | 8 | Right | Ordinal |  |
| 117 | V254 | Numeric | 2 | 0 | Q．33g Women | \｛1，Strongly di | －1，23， 24 | 8 | Right | Ordinal |  |
| 118 | V255 | Numeric | 2 | 0 | Q．33h Women | \｛1，Strongly di | －1，23， 24 | 8 | Right | Ordinal |  |
| 119 | V256 | Numeric | 2 | 0 | Q．33j Husband | \｛1，Strongly di | －1，23， 24 | 8 | Right | Ordinal |  |
| 120 | V257 | Numeric | 2 | 0 | Q．33k Equivale | \｛1，Strongly di | －1，23， 24 | 8 | Right | Ordinal |  |
| 121 | V258 | Numeric | 2 | 0 | Q．331 Equal pa | \｛1，Strongly di | －1，23， 24 | 8 | Right | Ordinal |  |
| 122 | V259 | Numeric | 2 | 0 | Q．33m Equal p | \｛1，Strongly di | －1，23， 24 | 8 | Right | Ordinal |  |
| 123 | V260 | Numeric | 2 | 0 | Q．33n Beauty | \｛1，Strongly di | －1，23， 24 | 8 | Right | Ordinal |  |
| 124 | V261 | Numeric | 2 | 0 | Q．330 Romanti | \｛1，Strongly di | －1，23， 24 | 8 | Right | Ordinal | － |
|  |  |  |  |  |  |  |  |  |  |  |  |
| SPSS Processor is ready |  |  |  |  |  |  |  |  |  |  |  |

．．and scroll down to the last row：

| Wi＊fifth form．sav［DataSet1］－SPSS Data Editor |  |  |  |  |  |  | $\square \square$ |
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|  |  |  |  |  |  |  |  |
|  | Name | Type | Width | Decimals | Label | Values | Missing |
| 229 | v429 | Numeric | 2 | 0 |  | \｛0，None）．．． | －1，23， 24 |
| 230 | v430 | Numeric | 2 | 0 |  | \｛0，None\}... | －1，23， 24 |
| 231 | Statouo | Numeric | 1 | 0 | Attachment to status quo | None | None |
| 232 | SEXISM | Numeric | 8 | 2 |  | None | None |
| 4．Data View $\lambda$ Variable View／ |  |  |  |  |  |  |  |
| SPS5 Processor is ready Transformations pending |  |  |  |  |  |  |  |

Your new variable SEXISM has been defined in the last row of the file. If you saved your own file last time, STATQUO will also be there. If you click on Data View then press [CTRL] + to see the last column, you will see that no values have been calculated yet.

| W. *fifth form.sav [DataSet1] - SPSS Data Editor |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eile Edit wiew Data Iransform Analyze Graphs ultilities window Help |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 1: SEXISM |  |  |  |  |  |  |  |  | Visible: 232 of 23 : |  |
|  | $\checkmark 424$ | v425 | v426 | $\checkmark 427$ | $\checkmark 428$ | \%429 | v430 | STATQUO | SEXISM |  |
| 1 | -1 | -1 | 1 | 2 | -1 | -1 | -1 | 0 |  |  |
| 2 | 7 | -1 | 1 | 4 | -1 | -1 | -1 | 0 |  |  |
| 3 | -1 | -1 | 1 | 2 | 4 | -1 | -1 | 2 |  |  |
| $\text { 4- \Data View } \wedge^{\wedge} \text { Variable View }{ }^{\wedge} \text { / }$ |  |  |  |  | $1<1$ | 1 | ${ }^{1}$ | $\cdots$ | ] | $\geq 1{ }^{2}$ |
|  |  |  | SPSS Processor is ready |  |  | Transformations pending |  |  |  |  |

This is because SPSS is still waiting for a statistical command such as FREQUENCIES or for an interim EXECUTE. Go back to the syntax file, type EXECUTE on the next line then run it. Now check the Data Editor again. The SEXISM column has now filled up with the scores generated by COUNT.


We don't actually need two decimal places for the integer variable SEXISM so the file can be tidied up by clicking on Variable View and manually changing 2 to 0 in the Data Editor Decimals column for SEXISM.

| Wi *fifth form.sav [DataSet1] - SPSS Data Editor |  |  |  |  |  |  | $\square \square$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
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|  |  |  |  |  |  |  |  |
|  | Name | Type | Width | Decimals | Label | Values | Missing |
| 229 | v429 | Numeric | 2 | 0 |  | \{0, None\}... | -1, 23, 24 |
| 230 | v430 | Numeric | 2 | 0 |  | \{0, None\}... | -1, 23, 24 |
| 231 | STATQUO | Numeric | 1 | 0 | Attachment to status quo | None | None |
| 232 | SEXISM | Numeric | 8 | ] * |  | None | None |
| 4. Data View /Variable View/ << |  |  |  |  |  |  |  |
| SPS5 Processor is ready |  |  |  |  |  |  |  |

Although the SEXISM column has now filled up with scores generated by COUNT, if you go back to Variable View there is nothing to tell you (or other users) what SEXISM is, so it needs a label.

You can write labels directly into the Label column in the Data Editor (easy for just one or two variables)

...but if you have to label a large number of variables it's probably better to use syntax.


Syntax is easy to edit, but for very long setup files it's preferable to compose all the SPSS syntax in Word (or other wordprocessor) edit it and then, when you're happy with it, copy it across to a syntax file. Remember, you can use lower case and abbreviations for commands and subcommands. SPSS normally only reads the first 3 or 4 characters anyway. So for VARIABLE LABELS you can simply write var lab. You soon get used to it and you're less likely to get RSI!

So far, so good. The new variable SEXISM has been saved at the end of the file, but we also need an analysis to check what the distribution looks like. A simple frequency count will do. Again, it is sufficient to write freq instead of FREQUENCIES Add a line freq sexism.


Run the job to get:
Q. 33 Sexism count

|  |  |  |  |  | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | 0 | 14 | 9.9 | 9.9 | 9.9 |
|  | 1 | 33 | 23.2 | 23.2 | 33.1 |
|  | 2 | 32 | 22.5 | 22.5 | 55.6 |
|  | 21 | 14.8 | 14.8 | 70.4 |  |
|  | Frequency | Percent | 7.7 | 7.7 | 78.2 |
|  | 11 | 9.9 | 9.9 | 88.0 |  |
|  | 14 | 7.7 | 7.7 | 95.8 |  |
|  | 11 | 4.2 | 4.2 | 100.0 |  |
|  | 6 | 142 | 100.0 | 100.0 |  |
|  |  |  |  |  |  |

This measure is quite crude because it only takes into account information from half the response on each item in the scale. It is also potentially inaccurate because it gives a score to every case even if one or more items is missing. Thus a score of 5 on the 0 to 9 sexism scale could be 5 out
of 9 or 5 out of 5 or anywhere in between.
We still need to think about how to deal with the problem of missing values which are coded as ' -1 ' for all items on Q. 34 and which have already been declared as missing in the file.

SPSS ignores these when using COUNT and can therefore give very distorted scores. It is possible to leave out pupils with missing items by counting the number of items with missing values and then selecting out only those pupils with no items missing.

With COUNT you'd have to do something like:

| COUNT | X=V248 v252 v253 v256 V261 <br>  <br> V251 v255 v259 v260 (MISSING). <br> SELECT IF <br> (X EQ 0). |
| :--- | :--- |

before tabulating the SEXISM score. The full sequence for this example might then be:


Note the use of temporary which limits transformations to the next procedure, otherwise you run the risk of permanent changes to the data which you may not be able to retrieve.

The run produces the following tables:
Statistics
Q. 34 Sexism count

| N | Valid | 114 |
| :--- | :--- | ---: |
|  | Missing | 0 |

Q. 34 Sexism count

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | 0 | 6 | 5.3 | 5.3 | 5.3 |
|  | 1 | 31 | 27.2 | 27.2 | 32.5 |
|  | 2 | 26 | 22.8 | 22.8 | 55.3 |
|  | 3 | 15 | 13.2 | 13.2 | 68.4 |
|  | 4 | 10 | 8.8 | 8.8 | 77.2 |
|  | 5 | 11 | 9.6 | 9.6 | 86.8 |
|  | 6 | 10 | 8.8 | 8.8 | 95.6 |
|  | 7 | 5 | 4.4 | 4.4 | 100.0 |
|  | Total | 114 | 100.0 | 100.0 |  |

Note that the sample size has been drastically reduced from 142 to 114 . This is what can happen when you combine many variables with missing values into one variable: it's why statisticians sometimes recommend substituting missing values with some central value such as mean, median or mode. At other times it's best to leave such cases out.

## The point-and-click way

## Go back to the Data Editor

| Fifith form.sav [DataSet1] - SPSS Data Editor |  |  |  |  |  |  | $\times$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eile Edit View Data Iransform Analyze Graphs \utilities Window Help |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Name | Type | Width | Decimals | Label | Values | Missing | ^ |
| 1 serial | Numeric | 3 | 0 | Serial number of questionnaire | None | None |  |
| 2 v106 | Numeric | 2 | 0 | Q. 1 First Subject | \{1, Human Biology\}... | -1,23,24 |  |
| 3 V 107 | Numeric | 2 | 0 | Q. 1 Second Subject | \{1, Human Biology\}... | -1,23,24 |  |
| $4 . \mathrm{v} 108$ | Numeric | 2 | 0 | Q. 1 Third Subject | \{1, Human Biology\}... | $-1,23,24$ |  |
| 5 v109 | Numeric | 2 | 0 | Q. 1 Fourth Subject | \{1, Human Biology\}... | -1,23,24 |  |
| 6 V 110 | Numeric | 2 | 0 | Q. 2 Anticipated age of leaving school | \{1, 16\}... | -1,23,24 |  |
| 7 V 111 | Numeric | 2 | 0 | Q. 3 Anticipating Further Education | \{1, Yes\}... | -1,23,24 |  |
| 8.112 | Numeric | 2 | 0 | Q. 4 Expected Completion of Further Ed | None | -1 |  |
| 9 V 114 | Numeric | 2 | 0 | Q. 5 Anticipated Job | \{1, Profess-ional\}... | -1,23,24 |  |
| 10.116 | Numeric | 2 | 0 | Q. 6 Likelihood of Anticipated Job | \{1, Not very likely\}... | -1,23,24 |  |
| 11 v 117 | Numeric | 2 | 0 | Q.7a Are girls as good at Maths | \{1, True\} ... | -1, 23, 24 |  |
| 12 V 118 | Numeric | 2 | 0 | Q 7b Are girls less confident | \{1, True \}... | -1,23,24 |  |
| 13 v119 | Numeric | 2 | 0 | Q.17c Boys encouraged to work harder? | \{1, True)... | -1,23,24 |  |
| 14 v120 | Numeric | 2 | 0 | Q.7d Cookery more important for girls? | \{1, True \}... | -1,23,24 | $v$ |
| 4. DData View $\lambda$ Variable View / |  |  |  | 1< |  |  | ) |
| SPSS Processor is ready |  |  |  |  |  |  |  |

...and scroll to find V248...V261:

| \#fifth form.sav [DataSet1] - SPSS Data Editor |  |  |  |  |  |  | x |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eile Edit Yiew Data Iransform Analyze Graphs Џ苂ilities Window Help |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | Name | Type | Wid D | Label | $V$ alues | Missing | $\wedge$ |
| 111 | V248 | Numeric 2 | 20 | Q.33a Women's fulfilment is kids | \{1, Strongly disagree\}... | -1,23,24 |  |
| 112 | V249 | Numeric 2 | 20 | Q.33b Women should pay on dates | \{1, Strongly disagree\}... | -1,23,24 |  |
| 113 | V250 | Numeric 2 | 20 | Q.33c Half top jobs reserved for women | \{1, Strongly disagree\}... | -1,23,24 |  |
| 114 | V251 | Numeric 2 | 20 | Q.33d Women in me'ns jobs | \{1, Strongly disagree\}... | -1, 23, 24 |  |
| 115 | V252 | Numeric 2 | 20 | Q.33e Women too emotional | \{1, Strongly disagree\}... | -1, 23, 24 |  |
| 116 | v253 | Numeric 2 | 20 | Q.33f Women are not ambitious | \{1, Strongly disagree\}... | -1,23,24 |  |
| 117 | V254 | Numeric 2 | 20 | Q. 33 g Women are not as intelligent | \{1, Strongly disagree\}... | -1,23,24 |  |
| 118 | V255 | Numeric 2 | 20 | Q.33h Women need to be beautiful | \{1, Strongly disagree\}... | -1,23,24 |  |
| 119 | V256 | Numeric 2 | 20 | Q.33j Husbands have final say | \{1, Strongly disagree\}... | -1, 23, 24 |  |
| 120 | V257 | Numeric 2 | 20 | Q.33k Equivalent brain power | \{1, Strongly disagree\}... | -1,23,24 |  |
| 121 | v258 | Numeric 2 | 20 | Q.331 Equal pay so women go Dutch | \{1, Strongly disagree\}... | -1, 23, 24 |  |
| 122 | V259 | Numeric 2 | 20 | Q.33m Equal pay for same work | \{1, Strongly disagree\}... | -1, 23,24 |  |
| 123 | V260 | Numeric 2 | 20 | Q.33n Beauty contests degrading | \{1, Strongly disagree\}... | -1, 23, 24 |  |
| 124 | V261 | Numeric 2 | 20 | Q.330 Romantic love is dead | \{1, Strongly disagree\}... | -1, 23, 24 | $\checkmark$ |
| 4 \| Data View $\lambda$ Variable View / |  |  |  | $1<$ |  |  |  |
| SPSS Processor is ready |  |  |  |  |  |  |  |

## Transform

...Count values within cases


Scroll to find the items in Q.33:

... highlight them one at a time and click on $\square$ or highlight all five with [CTRL] + left click

...and click on to drag them across to the Variables box.


Now write SEXISM in the Target Variable box and your own label in the Target Label box.


Click on Define Values:


The dialog is already set for entry of values so type 3 in the Value box

... and click on Add to transfer it to the Values to Count box:


Now do the same with the value 4

..and click Continue


Bit of a surprise, eh? If you click Define Values again, you'll see your selection is still there, but it still gave me a bit of a fright. Now click OK :

| W. *ifth form.sav [DataSet1] - SPSS Data Editor |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eile Edit Yiew Data Iransform Analyze Graphs \utilities Window Help |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | Name | Type | Width | Decimals | Label | Values | Missing | $\wedge$ |
| 111 | $\checkmark 248$ | Numeric | 2 | 0 | Q.33a Women's fulfilment is kids | \{1, Strongly disagree\}... | -1, 23, 24 |  |
| 112 | V249 | Numeric | 2 | 0 | Q.33b Women should pay on dates | \{1, Strongly disagree\}... | -1, 23, 24 |  |
| 113 | v250 | Numeric | 2 | 0 | Q.33c Half top jobs reserved for women | \{1, Strongly disagree\}... | -1, 23, 24 |  |
| 114 | v251 | Numeric | 2 | 0 | Q.33d Women in men's jobs | \{1, Strongly disagree \}.. | -1, 23, 24 |  |
| 115 | v252 | Numeric | 2 | 0 | Q.33e Women too emotional | \{1, Strongly disagree $\}$.. | -1, 23, 24 |  |
| 116 | v253 | Numeric | 2 | 0 | Q.33f Women are not ambitious | \{1, Strongly disagree \}... | -1, 23, 24 |  |
| 117 | v254 | Numeric | 2 | 0 | Q. 33 g Women are not as intelligent | \{1, Strongly disagree\}... | -1, 23, 24 |  |
| 118 | v255 | Numeric | 2 | 0 | Q.33h Women need to be beautiful | \{1, Strongly disagree\}... | -1, 23, 24 |  |
| 119 | v256 | Numeric | 2 | 0 | Q.33j Husbands have final say | \{1, Strongly disagree $\}$... | -1, 23, 24 |  |
| 120 | v257 | Numeric | 2 | 0 | Q.33k Equivalent brain power | \{1, Strongly disagree\}... | -1, 23, 24 |  |
| 121 | v258 | Numeric | 2 | 0 | Q.331 Equal pay so women go Dutch | \{1, Strongly disagree $\}$.. | -1, 23, 24 |  |
| 122 | v259 | Numeric | 2 | 0 | Q.33m Equal pay for same work | \{1, Strongly disagree $\}$.. | -1, 23, 24 |  |
| 123 | , 260 | Numeric | 2 | 0 | Q.33n Beauty contests degrading | \{1, Strongly disagree \}... | -1, 23, 24 |  |
| 124 | v261 | Numeric | 2 | 0 | Q.330 Romantic love is dead | \{1, Strongly disagree\}... | -1, 23, 24 |  |
| (- Data View $\lambda$ Variable View / |  |  |  |  | $1<$ |  | $\geqslant$ |  |
| SPSS Processor is ready |  |  |  |  |  |  |  |  |

Another surprise! What's going on? Don't worry, your new variable has been created and appended in the last row of the Data Editor.

## Scroll down to see it:



The syntax generated (automatically pasted to the Viewer window) is:

```
COUNT
    sexism = v248 v252 v253 v256 v260 (3) v248 v252 v253 v256 v260 (4)
VARIABLE LABELS sexism 'Q.33 Sexism count' .
EXECUTE .
```

To get the frequency count go back to the Data Editor and scroll to the bottom of the file:


## Analyze

...Descriptive statistics
...Frequencies

[CTRL] + [END] to skip to the end of the list:


Highlight and drag SEXISM to the Variables box:


Click $\qquad$ for:

Statistics
Q. 33 Sexism count

| N | Valid | 142 |
| :--- | :--- | ---: |
|  | Missing | 0 |

Q. 33 Sexism count

|  |  | Frequency | Percent | Valid Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | 0 | 50 | 35.2 | 35.2 | 35.2 |
|  | 1 | 32 | 22.5 | 22.5 | 57.7 |
|  | 2 | 28 | 19.7 | 19.7 | 77.5 |
|  | 16 | 11.3 | 11.3 | 88.7 |  |
|  | 12 | 8.5 | 8.5 | 97.2 |  |
|  | 4 | 2 | 2.8 | 2.8 | 100.0 |
|  |  | 142 | 100.0 | 100.0 |  |

..but it's so much easier to add a line to the syntax file and run that instead:


Next tutorial: 3.5.2.7 The COMPUTE command 2-Sexism
Feedback on ease of understanding and use of tutorial, please, to: iohnfhall@orange.fr


[^0]:    ${ }^{1}$ The size of the Data Editor displayed will depend on how it was left when last used. You can drag the corners of the pane to reduce or enlarge it, and the edges up or down and left or right, using the left mouse button. This pane is adjusted to display only the first few variables in the file.

