

Frequency Tables for Teal Scan Forms

(for surveys with up to 150 responses)

Please Note: Do not use "field B" for Social Security Numbers!

Overview

The TEAL program processes the teal "General Response Forms" used for surveys having 150 or fewer items with responses ranging from 0-9. The program produces a frequency table listing the mean response and standard deviation for each item, based on the number of actual responses to that item. You can request a printable PDF file or a computer file with the actual responses on each form. The program can analyze a single set of forms or multiple sets analyzed independently.

Layout of the forms

Each teal scan form is divided into three fields: the A field (alphabetic), the B field (numeric), and the Response field of up to 150 items. Each set of Response Forms is preceded by a specially marked teal form called a Processing Control Form or Separator Form. The Response Form, Processing Control Form and Separator Form are all the same printed teal form, available from WB Mason (order SCAN410701) teal. They differ only in how you mark them.

All forms must be filled in using a #2 pencil. The scanner can read only one mark per response line. The TEAL program will record a blank for a line with multiple marks. Response lines that are not filled in will also be recorded as blank.

Response Form

A respondent marks his or her responses in the Response field. He or she can also add labeling or identifying information in the A and B fields. You can select processing options that take information respondents mark in the various fields and transfer it to a printable PDF file and computer file output.

Processing Control Form

On the Processing Control Form, the B field is used to specify processing options (e.g., frequency tables, computer file output). The A field is used to specify optional labeling information for printable and file output. When multiple sets of Response Forms are analyzed in the same computer run, the first set must be preceded by a Processing Control Form and sets must be separated by a Separator form (described below). The Response field is not used on control and separator forms.

If you want to request a computer file containing the data from your survey

The first scan form must be a teal Processing Control Form. Two options on the form allow you to create a computer file with the contents of the actual Response Forms. These options produce a narrow-format (80 columns/line) or a wide-format (168 columns/line) computer file. If you have several sets of Response Forms in a single run, their contents will all be copied into one computer file. If you want to name the computer file, you must specify the file name on the Processing Control Form. Requested files will be available via the UD Dropbox after the job is processed. Dropbox files are removed after 21 days.

Narrow-format file (80 columns)

You can select which of the A and B fields and how many of the 150 items in the Response field to have transferred to the computer file. Blanks and marks 0-9 in the Response field are usually transferred without change to the narrow-format computer file. However, you can request that a blank be recoded as 0 and marks 0-9 be recoded as 1-10 before being written to the computer file.

The number of requested response items may exceed the capacity of a line (also called a record) in the computer file. In that case, a second, or possibly third, record is written for each respondent. The layout of the records is determined by your choice of which fields to transfer, how many items there are, and whether recoding is to be done. The specifics are given in Appendix A: Layout of the narrow-format file. The narrow-format file is always named "tealr80.data.bin#". The bin# part of the file name is assigned by the Smith Service Desk staff.

Wide-format file (168 columns)

The A and B fields and all 150 items in the Response field are transferred to one line (also called a record) of the computer file. This file is more difficult to edit and to print than the narrow-format file. However, it is simpler to use as input to statistical packages. This is because each column on every line of the file corresponds to the same information. For example, column 19 is always the response to item 1. The specifics are given in Appendix B: Layout of the wide-format file. In contrast to the narrow-format file, you may specify a unique name for the wide-format computer file by marking columns 1-3 of the A field, as described below.

How to mark a Processing Control Form

In the box labeled "B" on the Processing Control Form, specify the processing options for your surveys. Below are the processing options and the results they will produce.

Column 1-3: Maximum item number

- Mark the highest item number used on the Response Forms, from 1 to 150. If the number is a single digit such as 7, mark it as 007; if it is a double digit, such as 54, mark it as 054.

Column 4: Request Frequency table

- Mark 0 or leave blank if you do not want a frequency table.
- Mark 1 to request a printable PDF table. You can request an optional label for the table in Column 8.

Column 5: Request a Narrow-format computer file

- Mark 0 or leave blank if you do not want this computer file.
- Mark 1-6 to request this file. The contents of the file depend upon the option you choose. Consult the table below for the results you will receive for each option. Mark option 5 rather than 6 if no respondents chose a 9 in their Response field.

Mark	A Field	B Field	Response Field
1	No	No	Yes: no recoding done
2	No	Yes	Yes: no recoding done
3	Yes	No	Yes: no recoding done
4	Yes	Yes	Yes: no recoding done
5	No	No	Yes: Blanks recoded as 0; 0 recoded as 1; 1 recoded as 2; ...; 8 recoded as 9
6	No	No	Yes: Blanks recoded as 0; 0 recoded as 1; 1 recoded as 2; ...; 9 recoded as 10

Appendix A shows you how to interpret the contents of the file. The Narrow-format file is always named "tealr80.data.bin#". The bin# part of the file name is assigned by the Smith Service Desk staff.

Column 6: Print contents of Response Forms

- Mark 0 or leave blank if you do not want a printable listing of the forms.
- Mark 1 to request a printable PDF file. Each respondent's A and B field information is printed on one line. This is followed by the Response field information, with up to 100 items printed per line.

Column 7: Request a wide-format computer file

- Mark 0 or leave blank if you do not want to create this computer file.
- Mark 1 to generate a file with one line (also called a record) per respondent, consisting of the entire A, B, and Response fields.

The file will be named "tealxxx.data.bin#". In the file name, xxx is replaced with the 3 letters you enter into the "A" field, columns 1-3. The bin# part of the file name is assigned by the I/O staff. If you leave columns 1-3 blank, the file will be named "tealAAA.data.bin#".

Appendix B shows you how to interpret the contents of this file.

Column 8: Request a Frequency table label

- Mark 0 or leave blank if you do not want to label the frequency table.
- Mark 1 to request that frequency tables be labeled with the information marked in the A and B fields for the first Response Form in each set of Response Forms.

Column 9: Not currently used.

How to mark a Separator Form

To submit more than one set of Response Forms in a single run, place a teal scan form between sets of Response Forms. Mark 9999 in columns 1-4 of the B field. This form acts as a Separator form between sets, but is not analyzed as a Response Form.

Preparing the Scan Job for submission

- Stack all forms face up with the same orientation.
- Fully erase stray marks.
- Do not attach paper clips or staples.
- Do not fold the forms.

At the top right corner of the Control Form, write the word CONTROL next to the printed word Identification to identify the Processing Control Form.

Order of Scan Forms

To submit a single set of Response Forms, arrange the forms in the following order:

- First Processing Control Form
- First set of Response Forms

To submit multiple sets of Response Forms, arrange the forms in the following order:

- First Processing Control Form
- First set of Response Forms
- Separator Form
- Second set of Response Forms
- Separator Form etc.

Submitting the scan job for processing

1. Obtain a **Frequency Scan Request Card** at the Service Desk in 004 Smith Hall. Fill in your UDeI Net ID and the other requested information. Submit this card with your forms. The Smith Site Assistant will give you a "bin slip" containing a unique number to identify your job.
2. After the job is processed, your forms will be returned to the Service Desk counter. If you selected options on the Processing Control Form that created a computer file, the file(s) and a printable PDF file of your results are placed in the UD Dropbox.

Appendix A: Layout of the narrow-format computer file

The layout of the narrow-format computer file depends upon the option you marked in column 5 of the Processing Control Form's B field. Each line of the file is 80 columns wide; the file contains as many lines as necessary to display all the information in the Response field for each respondent (i.e., there may be two or three lines, each 80 columns wide, for each respondent). Each line of the file contains a sequence number in column 80 indicating how many lines correspond to an individual Response Form. For example, if each form produces three lines in the file, column 80 would be numbered 1, 2, and 3 for the first form, 1, 2, and 3 for the second form and so on.

The following chart shows what information appears in each column of the computer file you receive. The contents of the file change according to the option you selected in column 5.

Processing Control Form's "B" field, column 5, option 1

Computer file columns	Information (from Response Form)
1-72	Response field values (up to 72 single-digit values per line)
73-75	A field: columns 1-3
76-79	B field: columns 1-4
80	Sequence number

Processing Control Form's "B" field, column 5, option 2

Computer file columns	Information (from Response Form)
1-9	B field: columns 1-9
10-72	Response field values (up to 63 single-digit values per line)
73-75	A field: columns 1-3
76-79	B field: columns 1-4
80	Sequence number

Processing Control Form's "B" field, column 5, option 3

Computer file columns	Information (from Response Form)
1-9	A field: columns 1-9
10-72	Response field values (up to 63 single-digit values per line)
73-75	A field: columns 1-3
76-79	B field: columns 1-4
80	Sequence number

Processing Control Form's "B" field, column 5, option 4

Computer file columns	Information (from Response Form)
1-9	A field: columns 1-9
10-18	B field: columns 1-9
19-72	Response field values (up to 54 single-digit values per line)
73-75	A field: columns 1-3
76-79	B field: columns 1-4
80	Sequence number

Processing Control Form's "B" field, column 5, option 5

Computer file columns	Information (from Response Form)
1-72	Recorded response field values (up to 72 single-digit values per line)
73-75	A field: columns 1-3
76-79	B field: columns 1-4
80	Sequence number

Processing Control Form's "B" field, column 5, option 6

Computer file columns	Information (from Response Form)
1-72	Recorded response field values (up to 36 double-digit values per line)
73-75	A field: columns 1-3
76-79	B field: columns 1-4
80	Sequence number

Appendix B: Layout of the wide-format computer file

If you marked 1 in column 7 of the Processing Control Form's "B" field, a wide-format computer file will be placed in your UD Dropbox account. Each line of the file is 168 columns wide and contains the information from one response sheet. The file is called tealAAA.data.bin# or tealnnn.data.bin# (if you marked columns 1-3 of the "A" field with letters to give the file a unique name).

The following chart shows what information appears in each column of the computer file you receive.

Processing Control Form's "B" field, column 7, option 1

Computer file columns	Information (from Response Form)
1-9	A field
10-18	B field
19-168	Response field

Appendix C: Sample Processing Control Form, Response Form, and results

Attached to this document are a sample Processing Control Form and a Response Form followed by the results you would receive if you chose the options indicated on the Processing Control Form.

On the sample Processing Control Form, the instructor indicated that the maximum number of responses was 22. That person also requested:

- a frequency table (shown on page 3 of the sample results pages)
- a narrow-format computer file (shown on page 1 of the sample results pages as "Punch Request") containing the information from the A and Response fields. The file will be sent to her UD Dropbox account.

- a printable copy of each respondent's answers (shown on page 2 of the sample results pages).
- a label for the frequency table with the information from the A and B fields of the first response form. (The label-ENGLISH 11025, in this case-is shown on page 3 of the results pages.)

The Response Form matches the third set of responses shown on page 2 of the sample results pages. Notice that for item 4, the respondent has marked two answers and for item 15, the respondent has chosen no answer. In both cases, the Teal program ignores the responses (note the missing value for the third set of responses on page 2).

GENERAL RESPONSE FORM I
 Fill in bubble completely.
 Use No. 2 pencil.

Identification Control Sheet

101	0123456789	0123456789
102	0123456789	0123456789
103	0123456789	0123456789
104	0123456789	0123456789
105	0123456789	0123456789
106	0123456789	0123456789
107	0123456789	0123456789
108	0123456789	0123456789
109	0123456789	0123456789
110	0123456789	0123456789
111	0123456789	0123456789
112	0123456789	0123456789
113	0123456789	0123456789
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150	0123456789	0123456789

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99	0123456789	0123456789
100	0123456789	0123456789

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41	0123456789	0123456789
42	0123456789	0123456789
43	0123456789	0123456789
44	0123456789	0123456789
45	0123456789	0123456789
46	0123456789	0123456789
47	0123456789	0123456789
48	0123456789	0123456789
49	0123456789	0123456789
50	0123456789	0123456789

DO NOT MARK IN THIS AREA

|||||

DO NOT MARK IN THIS AREA

|||||

Program to process TEAL test-response form

Control information entered:

- 22 Maximum item number used
- 1 Frequency count request (0=NO, 1=YES)
- 3 Punch request (0=no, 1=yes)
- 1 Form print request (0=no, 1=yes)
- 0 Save diskpack file request (0=no, 1=yes)
- 1 Print label information (0=no, 1=yes)

Number of scan forms processed (Rejects not included) 11

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Response analysis, test forms          Page 1          BINS 326
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Print request output...

ENGLISH 11025
7448518334416342361006

ENGLISH
31436750133214311105 4

ENGLISH 11025
534 1392213134 1443131

ENGLISH
428227720100113 526131

ENGLISH 11025
0123450123414501302423

ENGLISH
5490892253371104887852

ENGLISH 11025
3906193425126638710557
```

Total forms in set: 10

ENGLISH 11025

Item	Responses										Total Responses	Mean/Standard Deviation	
	0	1	2	3	4	5	6	7	8	9			
1	2	0	1	1	1	4	0	1	0	0	10	3.600/	2.319
(%)	20.00	0.00	10.00	10.00	10.00	40.00	0.00	10.00	0.00	0.00			
2	0	1	2	0	2	1	3	0	0	1	10	4.500/	2.415
(%)	0.00	10.00	20.00	0.00	20.00	10.00	30.00	0.00	0.00	10.00			
3	1	0	1	0	3	1	1	0	0	3	10	5.200/	3.084
(%)	10.00	0.00	10.00	0.00	30.00	10.00	10.00	0.00	0.00	30.00			
4	1	1	2	2	0	0	2	0	1	0	9	3.444/	2.651
(%)	11.11	11.11	22.22	22.22	0.00	0.00	22.22	0.00	11.11	0.00			
5	1	3	1	0	1	1	1	1	1	0	10	3.500/	2.877
(%)	10.00	30.00	10.00	0.00	10.00	10.00	10.00	10.00	10.00	0.00			
6	0	1	0	2	1	1	1	2	0	2	10	5.400/	2.675
(%)	0.00	10.00	0.00	20.00	10.00	10.00	10.00	20.00	0.00	20.00			
7	2	0	1	1	0	2	3	1	0	0	10	4.000/	2.582
(%)	20.00	0.00	10.00	10.00	0.00	20.00	30.00	10.00	0.00	0.00			
8	1	2	3	1	1	0	0	0	1	1	10	3.200/	3.011
(%)	10.00	20.00	30.00	10.00	10.00	0.00	0.00	0.00	10.00	10.00			
9	1	1	4	1	0	1	2	0	0	0	10	2.900/	2.079
(%)	10.00	10.00	40.00	10.00	0.00	10.00	20.00	0.00	0.00	0.00			
10	0	2	1	3	1	2	0	1	0	0	10	3.400/	1.897
(%)	0.00	20.00	10.00	30.00	10.00	20.00	0.00	10.00	0.00	0.00			
11	1	2	0	1	2	2	2	0	0	0	10	3.500/	2.173
(%)	10.00	20.00	0.00	10.00	20.00	20.00	20.00	0.00	0.00	0.00			
12	1	3	2	0	0	1	1	2	0	0	10	3.200/	2.741
(%)	10.00	30.00	20.00	0.00	0.00	10.00	10.00	20.00	0.00	0.00			
13	1	3	0	1	2	1	2	0	0	0	10	3.100/	2.234
(%)	10.00	30.00	0.00	10.00	20.00	10.00	20.00	0.00	0.00	0.00			
14	0	3	0	1	2	2	1	1	0	0	10	3.700/	2.167
(%)	0.00	30.00	0.00	10.00	20.00	20.00	10.00	10.00	0.00	0.00			
15	3	0	0	3	2	0	1	0	0	0	9	2.556/	2....
(%)	33.33	0.00	0.00	33.33	22.22	0.00	11.11	0.00	0.00	0.00			
16	0	2	1	2	1	0	1	0	2	0	9	4.000/	2.739
(%)	0.00	22.22	11.11	22.22	11.11	0.00	11.11	0.00	22.22	0.00			
17	0	1	0	3	1	1	0	2	1	1	10	5.000/	2.625
(%)	0.00	10.00	0.00	30.00	10.00	10.00	0.00	20.00	10.00	10.00			
18	1	3	1	0	1	0	2	1	1	0	10	3.600/	2.951
(%)	10.00	30.00	10.00	0.00	10.00	0.00	20.00	10.00	10.00	0.00			
19	2	2	1	1	0	0	1	2	0	1	10	3.600/	3.340
(%)	20.00	20.00	10.00	10.00	0.00	0.00	10.00	20.00	0.00	10.00			
20	1	2	1	0	1	3	0	0	1	1	10	4.000/	3.018
(%)	10.00	20.00	10.00	0.00	10.00	30.00	0.00	0.00	10.00	10.00			
21	1	0	1	1	1	2	1	0	1	1	9	4.667/	2.828
(%)	11.11	0.00	11.11	11.11	11.11	22.22	11.11	0.00	11.11	11.11			
22	1	3	1	1	1	0	1	1	0	1	10	3.400/	3.026
(%)	10.00	30.00	10.00	10.00	10.00	0.00	10.00	10.00	0.00	10.00			