

Constructive Response Templates focus student efforts on desired outputs of an assignment. Additional benefits include reducing student frustration and cognitive load.

Abstract

Although there have been mixed results from designing assignments with constructive response templates on student performance, the practice can focus student efforts (reducing confusion and cognitive load) on student assignments and make grading easier for faculty. Grades from 149 college students who completed an assignment showed significantly higher scores for the templated assignment versus the non-templated version of the assignment ($U = (93, 52), 7630, p < .001$). However, opposite results were noted for students who used a templated version of the final exam versus exam scores for students who did not use the templated version ($U = (94, 51), 7383, p = .025$).

Pros:

Cons:

Takeaways:

Example 1. (Templated vs blank page scored 1 pt higher*) $n_c=93, n_t=52$

Random Number Generator

This assignment can be completed in one page but no more than two. Use current APA format to cite and include at least two references.

Name:

When to use Random Number Generator:

What are the differences in sampling with and without replacement and why does that matter?

URL Link to Random Number Generator or source ([If source, use APA formatting](#)):

Screenshot (at least 10 numbers created by Random Number Generator):

Reference List (at least two using current APA format)

Example 2. Final Part I (Templated scored less than a point lower) $n_c=95, n_t=54$

Altimeter Brand A	Altimeter Brand B	Altimeter Brand C	Altimeter Brand D	Altimeter Brand E	Altimeter Brand F	ACME Altimeter error before adjustment-calibration	ACME Altimeter error after adjustment-calibration	Brand X Altimeter error before adjustment-calibration	Brand X Altimeter error after adjustment-calibration
126	20	148	41	26	117	123	27	42	0
0	14	96	5	18	12	21	33	24	15
40	32	92	45	36	18	96	12	99	12
9	12	78	33	66	114	75	12	99	27
90	40	84	30	36	126	75	27	78	18
27	26	75	33	66	9	96	3	96	4
135	30	75	15	99	124	12	15	57	2
96	17	87	30	30	27	132	30	21	12
120	22	96	17	21	51	12	33	87	6
65	15	102	23	27	39	69	9	93	16
111	26	69	26	33	102	117	39	65	18
81	34	108	18	45	144	126	3	93	9
75	18	130	24	59	135	87	30	16	18
108	29	129	20	57	62	42	33	33	15
30	36	50	147	54	36	78	27	33	21
43	14	130	12	60	147	69	6	87	15
27	60	78	44	96	75	126	15	96	9
129	129	138	41	51	9	129	9	57	6
138	9	69	53	87	15	3	15	78	18
57	0	151	30	36	141	30	36	96	15

* Note - Error (distance from zero) achieved by converting data to absolute values.

Put test results table here for Part II of the Final

