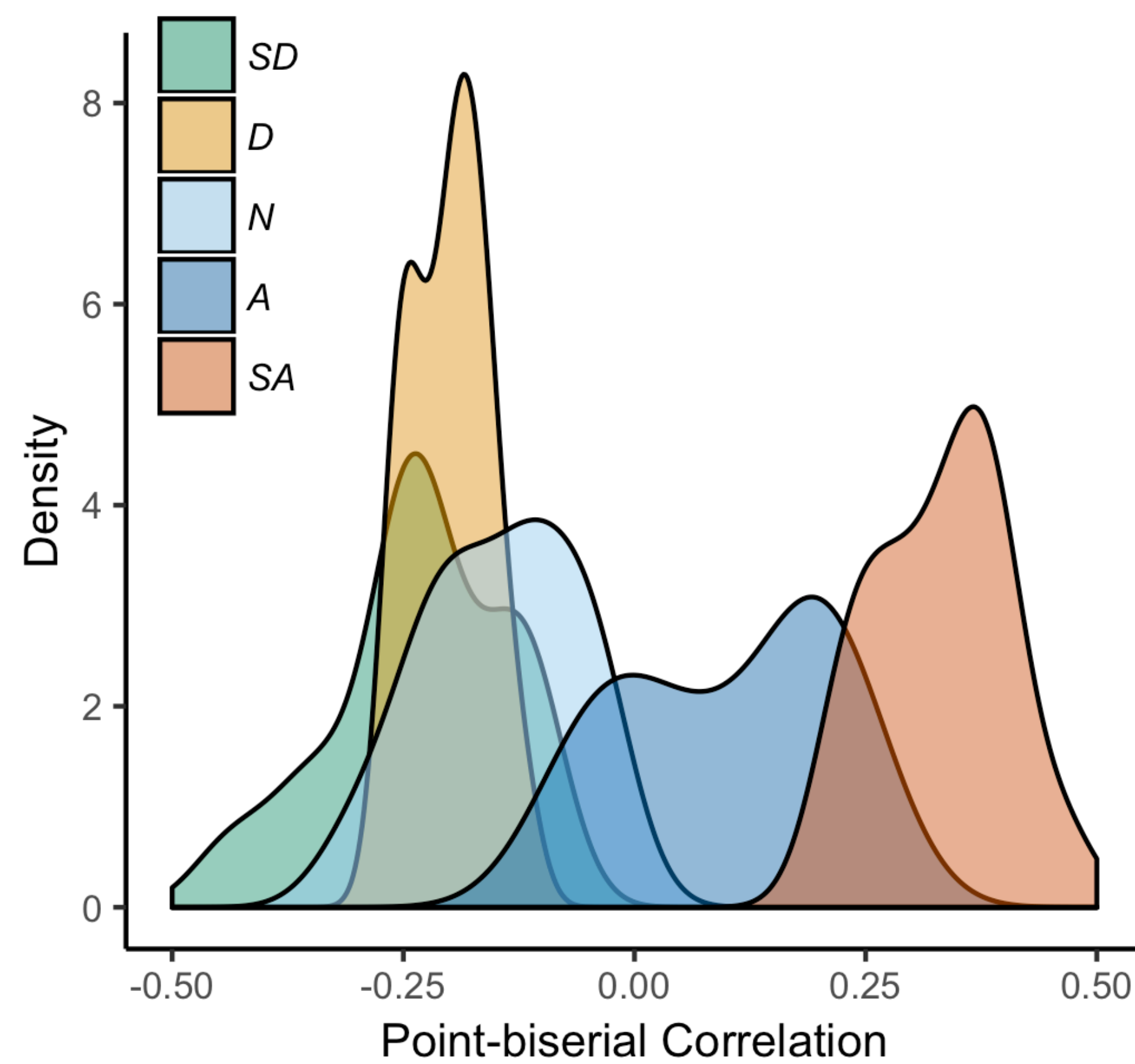


RESULTS

- All response options are being used (but not equally).

Item	SD (%)	D (%)	N (%)	A (%)	SA (%)
1	10.7	18.4	24.1	28.3	18.5
2	11.3	21.6	28.5	28.6	10.0
3	7.9	15.0	26.5	31.5	19.1
4	10.9	21.3	23.4	31.4	13.0
5	8.0	32.7	32.7	21.5	5.1
6	1.9	7.9	16.9	43.4	30.0
7	1.2	4.5	14.1	54.8	38.3
8	14.4	14.1	30.9	26.5	14.1
9	2.6	6.9	22.8	40.9	26.8
10	1.6	5.3	13.0	33.2	46.9
11	1.5	4.4	18.2	54.1	33.8
12	2.4	6.8	19.3	41.4	30.1
13	4.9	14.1	35.3	36.2	9.4
14	6.2	14.7	22.0	36.9	20.2
15	5.2	11.3	22.7	38.9	22.0
Mean	6.1	13.3	23.4	34.8	22.5

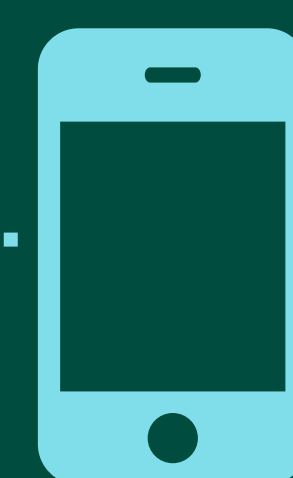
- SD, D, and N are somewhat redundant.
- A and SA are not redundant.



- Scoring differently makes a small, but potentially important difference in findings (note the Cohen's *d* effect sizes).

Scoring Style	Pretest (%)		Posttest (%)		Gain (%)	
	Mean	S.D.	Mean	S.D.	Mean	<i>d</i>
5-point	64.3	11.0	62.7	12.1	-1.6	-0.14
2-point	58.8	17.9	57.1	19.2	-1.7	-0.09

Stop scoring CLASS and other Likert responses using a 2-point scale. Collapsing categories removes information and can bias data. A 5-point or 3-point scale is better.



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Response category	SD	D	N	A	SA
Original 5-point scale	1	2	3	4	5
3-point scale Trichotomous	1			2	3
2-point scale (Agree)	0			1	
2-point scale (Disagree)	1	0			

Title: Criteria for collapsing rating scale responses: A case study of the CLASS

Ben Van Dusen¹ & Jayson Nissen²

¹California State Univ. Chico

²J.M. Nissen Consulting

METHODS

- Data collected from around the country through LASSO
- Filtered for filter question and taking < 3 min

	Pre-filter	Post-filter
Institutions	27	26
Courses	187	185
Students	10,466	8,851

- Used 15-item version (Douglas et al., 2014)
- Data analyzed for
 - Lack of use
 - Redundancy (point-bi serial correlations)

Item	SD	D	N	A	SA
1	-0.36	-0.21	-0.07	0.17	0.37
2	-0.22	-0.17	-0.04	0.20	0.23
3	-0.33	-0.24	-0.12	0.18	0.37
4	-0.23	-0.20	-0.11	0.20	0.32
5	-0.13	-0.16	-0.04	0.20	0.22
6	-0.11	-0.18	-0.17	0.01	0.27
7	-0.12	-0.13	-0.19	-0.04	0.25
8	-0.44	-0.20	-0.04	0.25	0.37
9	-0.25	-0.25	-0.23	0.05	0.40
10	-0.12	-0.15	-0.20	-0.08	0.31
11	-0.23	-0.24	-0.30	-0.05	0.46
12	-0.18	-0.19	-0.25	0.00	0.46
13	-0.27	-0.26	-0.11	0.25	0.28
14	-0.24	-0.18	-0.12	0.08	0.34
15	-0.25	-0.26	-0.21	0.12	0.40
Mean	-0.23	-0.20	-0.15	0.10	0.33

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