



A Report of the Course-Embedded Texas Government Assessment

POLS 2306

Spring 2026

Description of the Course-Embedded Texas Government Assessment

Beginning in fall 2022, a new locally developed pretest to posttest was administered within sections of POLS 2306: Texas Government. The instrument consisted of 10 multiple-choice questions and was administered at the beginning and at the end of the fall and spring semesters. The instrument was developed by the faculty of the Department of Political Science for use as part of their ongoing programmatic assessment as well as for Core Learning assessment. Because the instrument was locally developed by Political Science faculty, it is assumed to have content-related validity (Banta & Palomba, 2015). Additionally, as this test was embedded within the POLS 2306: Texas Government courses, the student scores represent authentic student work (Banta & Palomba, 2015; Kuh et al., 2015). However, because the instrument is not for a grade within the course, it represents a low-stakes assessment of student learning.

The student data presented within this report reflect student performance regarding the Texas Higher Education Coordinating Board's Core Learning Objective of Social Responsibility (THECB, 2026). The THECB (2026) defines Social Responsibility as "intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities." Data from this assessment align with the "knowledge of civic responsibility" element of the broader concept of Social Responsibility.

Methodology

Starting in spring 2026 links to the pretest and posttest were included in Blackboard for each section of POLS 2306: Texas Government. A mass email was sent to all enrolled students for the pretest, and targeted emails for the posttest were sent to students who completed the pretest. A total of 302 students took the pretest, and 145 students took the posttest for all sections for the spring 2026 semester; however, not all student test scores were used for analysis. To determine whether student performance increased from pretest to posttest, a dependent samples *t*-test was used for analysis. Student identification numbers were collected along with student scores to identify each student's score on both the pretest and posttest. A total of 113 students could be identified as taking both the pre- and posttests. All statistical analyses were therefore conducted on only those students for whom both pre- and posttest scores could be identified.

Prior to conducting inferential statistics to determine whether differences were present between the students' pre- to posttest scores, checks were conducted to determine the extent to which these data were normally distributed. Most of the standardized skewness and kurtosis coefficients (i.e., the skewness and kurtosis values divided by their standard error) were within the range of normality of +/-3 (Onwuegbuzie & Daniel, 2002) for the face-to-face, online, and combined student populations. Therefore, a parametric dependent samples *t*-test was used to analyze the student performance data for the combined populations.

Results

A parametric dependent samples *t*-test revealed a statistically significant difference at the $p < .001$ level between students' pre- to posttest scores for students enrolled in face-to-face sections of POLS 2306: Texas Government for the spring 2026 semester, $t(37) = -5.25, p < .001$. This difference represented a large effect size (Cohen's *d*) of 0.85 (Cohen, 1988). The average student score increased by over 24%. This equated to an average increase of almost 2.5 questions answered correctly from pre- to posttest. Readers are directed to Table 1 for the descriptive statistics for student pre- and posttest scores.

Table 1

Descriptive Statistics for Student Pre- and Posttest Scores on Course-Embedded Test in POLS 2306: Texas Government for Spring 2026 (Face-to-Face)

Test Version	<i>n</i>	<i>M</i>	<i>SD</i>	<i>M %</i>	<i>SD %</i>
Pretest Scores	38	5.00	2.61	50.00	26.10
Posttest Scores	38	7.42	2.40	74.21	24.01

A parametric dependent samples *t*-test revealed a statistically significant difference at the $p < .001$ level between students' pre- to posttest scores for students enrolled in online sections of POLS 2306: Texas Government for the spring 2026 semester, $t(74) = -6.53, p < .001$. This difference represented a moderate effect size of 0.75 (Cohen, 1988). The average student score increased by over 23%. This equated to an average increase of over two questions answered correctly from pre- to posttest. Readers are directed to Table 2 for the descriptive statistics for student pre- and posttest scores.

Table 2

Descriptive Statistics for Student Pre- and Posttest Scores on Course-Embedded Test in POLS 2306: Texas Government for Spring 2026 (Online)

Test Version	<i>n</i>	<i>M</i>	<i>SD</i>	<i>M %</i>	<i>SD %</i>
Pretest Scores	75	5.17	2.67	51.73	26.68
Posttest Scores	75	7.51	2.69	75.07	26.93

A parametric dependent samples *t*-test revealed a statistically significant difference at the $p < .001$ level between students' pre- to posttest scores for all students enrolled in sections of POLS 2306: Texas Government for the spring 2026 semester, $t(112) = -8.37, p < .001$. This difference represented a near large effect size of 0.79 (Cohen, 1988). The average student score increased by almost 24%. This equated to an average increase of over two questions answered correctly from pre- to posttest. Readers are directed to Table 3 for the descriptive statistics for student pre- and posttest scores.

Table 3

Descriptive Statistics for Student Pre- and Posttest Scores on Course-Embedded Test in POLS 2306: Texas Government for Spring 2026 (All students)

Test Version	<i>n</i>	<i>M</i>	<i>SD</i>	<i>M %</i>	<i>SD %</i>
Pretest Scores	113	5.12	2.64	51.15	26.38
Posttest Scores	113	7.48	2.59	74.78	25.88

Additional information regarding student performance can also be gained through a disaggregated or item analysis of student performance on individual test questions. This item analysis revealed that students in face-to-face sections scored statistically significantly higher on the posttest on seven of the 10 questions. Questions 7 and 8 were significant at $p < .001$ with moderate effect sizes (Cohen, 1988). Questions 3, 5, and 9 were significant at $p < .01$ with small to moderate effect sizes. Questions 1 and 2 were significant at $p < .05$ with small effect sizes. The results for a complete breakdown of item analysis data are presented in Table 4.

Table 4

Percentage of Face-to-Face Students Correctly Answering Pre- and Posttest Questions for Spring 2026

	Pretest %	Posttest %	Mean Difference	<i>p</i>	Cohen's <i>d</i>
Question 1	45	74	29	.014*	0.42
Question 2	29	53	24	.027*	0.37
Question 3	63	92	29	.001**	0.56
Question 4	76	82	6		
Question 5	39	71	32	.002**	0.55
Question 6	84	84	0		
Question 7	37	76	39	< .001***	0.72
Question 8	29	74	45	< .001***	0.69
Question 9	24	53	29	.006**	0.47
Question 10	74	84	10		

Note. $n = 38$. * significant at $p < .05$; ** significant at $p < .01$; *** significant at $p < .001$.

Cohen's *d* from 0.2–0.49 indicates a small effect size, 0.50–0.79 indicates a moderate effect size, and 0.80 and higher indicates a large effect size (Cohen, 1988).

An item analysis for students in online sections revealed that they scored statistically significantly higher on the posttest on eight of the 10 test questions. Questions 1, 2, 3, 5, 7, and 8 were significant at $p < .001$, all with effect sizes ranging from small to large (Cohen, 1988). Questions 4 and 10 were significant at $p < .05$, with small effect sizes. The results for a complete breakdown of item analysis data are presented in Table 5.

Table 5

Percentage of Online Students Correctly Answering Pre- and Posttest Questions for Spring 2026

	Pretest %	Posttest %	Mean Difference	<i>p</i>	Cohen's <i>d</i>
Question 1	52	77	25	< .001***	0.44
Question 2	33	72	39	< .001***	0.66
Question 3	57	83	26	< .001***	0.44
Question 4	65	83	18	.011*	0.30
Question 5	44	75	31	< .001***	0.56
Question 6	84	87	3		
Question 7	31	75	44	< .001***	0.84
Question 8	41	68	27	< .001***	0.44
Question 9	32	41	9		
Question 10	77	91	14	.024*	0.27

Note. $n = 75$. * significant at $p < .05$; ** significant at $p < .01$; *** significant at $p < .001$.

Cohen's *d* from 0.2–0.49 indicates a small effect size, 0.50–0.79 indicates a moderate effect size, and 0.80 and higher indicates a large effect size (Cohen, 1988).

An item analysis for students in all sections combined revealed that face-to-face and online students scored statistically significantly higher on nine of the 10 questions. Questions 1, 2, 3, 5, 7, and 8 were significant at $p < .001$ with effect sizes ranging from small to large (Cohen, 1988). Questions 9 and 10 were significant at $p < .01$ with small effect sizes, and Question 4 was significant at $p < .05$ with a small effect size. The results for a complete breakdown of item analysis data are presented in Table 6.

Table 6

Percentage of All Students Correctly Answering Pre- and Posttest Questions for Spring 2026

	Pretest %	Posttest %	Mean Difference	p	Cohen's d
Question 1	50	76	26	< .001***	0.43
Question 2	32	65	33	< .001***	0.55
Question 3	59	86	27	< .001***	0.48
Question 4	69	82	13	.016*	0.23
Question 5	42	73	31	< .001***	0.56
Question 6	84	86	2		
Question 7	33	75	42	< .001***	0.80
Question 8	37	70	33	< .001***	0.53
Question 9	29	45	16	.007**	0.26
Question 10	76	88	12	.008**	0.26

Note. $n = 113$. * significant at $p < .05$; ** significant at $p < .01$; *** significant at $p < .001$.

Cohen's d from 0.2–0.49 indicates a small effect size, 0.50–0.79 indicates a moderate effect size, and 0.80 and higher indicates a large effect size (Cohen, 1988).

References

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