



A Report of the Course-Embedded Contemporary Moral Issues Assessment

PHIL 2306

Fall 2025-Spring 2026

Description of the Course-Embedded Contemporary Moral Issues Assessment

Beginning in fall 2022, a new locally developed pretest to posttest assessment was administered within sections of PHIL 2306: Contemporary Moral Issues. The instrument consisted of 20 multiple choice questions and was administered at the beginning and at the end of the fall and spring semesters. The instrument was developed by Philosophy faculty for use as part of their ongoing programmatic assessment as well as for Core Learning assessment. Because the instrument was developed by faculty with expertise in teaching these concepts, it is assumed that the instrument has content-related validity (Banta & Palomba, 2015). Additionally, as this test was embedded within normal sections of PHIL 2306, the student scores represent authentic student work (Banta & Palomba, 2015; Kuh et al., 2015).

The student data presented within this report reflect student performance regarding the Texas Higher Education Coordinating Board's Core Learning Objectives of Social Responsibility and Personal Responsibility (THECB, 2026). The THECB defines these concepts as follows:

- Social Responsibility: intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities
- Personal Responsibility: ability to connect choices, actions, and consequences to ethical decision-making

These data should therefore be used in conjunction with other data to fully understand student knowledge and ability regarding these Core Learning Objectives.

Methodology

Starting in fall 2025 links to the pretest and posttest were included in Blackboard for each section of PHIL 2306: Contemporary Moral Issues. 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 233 students took the pretest, and a total of 106 students took the posttest for all sections for the 2025-2026 academic year; 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 96 students could be identified as taking both the pre- and posttests. All statistical analysis was 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 were within the limits 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 between students' pre- to posttest scores for students enrolled in face-to-face sections of PHIL 2306: Contemporary Moral Issues for the 2025-2026 academic year, $t(18) = -4.37, p < .001$. This difference represented a large effect size (Cohen's *d*) of 1.00 (Cohen, 1988). The average student

score increased by almost 19%. This equated to an average increase of almost four questions answered correctly from pre- to posttest. Readers are directed to Table 1 for a breakdown of these results.

Table 1

Descriptive Statistics for Student Pre- and Posttest Scores on Course-Embedded Test in PHIL 2306: Contemporary Moral Issues for 2025-2026 (Face-to-Face)

Test Version	<i>n</i>	<i>M</i>	<i>SD</i>	<i>M %</i>	<i>SD %</i>
Pretest Scores	19	12.63	3.95	63.16	19.74
Posttest Scores	19	16.42	4.30	82.11	21.49

A parametric dependent samples *t*-test revealed a statistically significant difference at the between students' pre- to posttest scores for students enrolled in online sections of PHIL 2306: Contemporary Moral Issues for the 2025-2026 academic year, $t(76) = -10.15, p < .001$. This difference represented a large effect size of 1.16 (Cohen, 1988). The average student score increased by almost 25%. This equated to an average increase of almost five questions answered correctly from pre- to posttest. Readers are directed to Table 2 for a breakdown of these results.

Table 2

Descriptive Statistics for Student Pre- and Posttest Scores on Course-Embedded Test in PHIL 2306: Contemporary Moral Issues for 2025-2026 (Online)

Test Version	<i>n</i>	<i>M</i>	<i>SD</i>	<i>M %</i>	<i>SD %</i>
Pretest Scores	77	11.78	3.77	58.90	18.84
Posttest Scores	77	16.74	3.99	83.70	19.94

A parametric dependent samples *t*-test revealed a statistically significant difference between students' pre- to posttest scores for students enrolled in all sections of PHIL 2306: Contemporary Moral Issues for the 2025-2026 academic year, $t(95) = -11.04, p < .001$. This difference represented a large effect size of 1.13 (Cohen, 1988). The average student score increased by almost 24%. This equated to an average increase of about five questions answered correctly from pre- to posttest. Readers are directed to Table 3 for a breakdown of these results.

Table 3

Descriptive Statistics for Student Pre- and Posttest Scores on Course-Embedded Test in PHIL 2306: Contemporary Moral Issues for 2025-2026 (All Students)

Test Version	<i>n</i>	<i>M</i>	<i>SD</i>	<i>M %</i>	<i>SD %</i>
Pretest Scores	96	11.95	3.80	59.74	18.99
Posttest Scores	96	16.98	4.03	83.39	20.15

Additional important information regarding student performance can also be gained through an item analysis of student pre- and posttest performance on individual test questions for each of the examined student populations. This item analysis revealed that students in face-to-face sections scored statistically significantly higher on six of the 20 questions from pre- to posttest. Readers are directed to Table 4 for a complete breakdown of item analysis data for face-to-face students.

Table 4

Percentage of Face-to-Face Students Correctly Answering Pre- and Posttest Questions for 2025-2026

	Pretest %	Posttest %	Mean Difference	<i>p</i>	Cohen's <i>d</i>
Question 1	47	58	11		
Question 2	74	95	21	.042*	0.50
Question 3	79	89	10		
Question 4	47	74	27		
Question 5	68	74	6		
Question 6	58	89	31	.010**	0.66
Question 7	74	89	15		
Question 8	74	74	0		
Question 9	26	79	53	.004**	0.76
Question 10	47	58	11		
Question 11	68	74	6		
Question 12	84	89	5		
Question 13	79	84	5		
Question 14	74	95	21		
Question 15	37	84	47	< .001***	0.92
Question 16	79	89	10		
Question 17	63	95	32	.010**	0.66
Question 18	79	89	10		
Question 19	42	84	42	.007**	0.69
Question 20	63	79	16		

Note. $n = 19$. * 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 17 of the 20 test questions from pre- to posttest. Readers are directed to Table 5 for a complete breakdown of item analysis data for online students.

Table 5

Percentage of Online Students Correctly Answering Pre- and Posttest Questions for 2025-2026

	Pretest %	Posttest %	Mean Difference	<i>p</i>	Cohen's <i>d</i>
Question 1	62	91	29	< .001***	0.49
Question 2	74	91	17	.004**	0.34
Question 3	84	88	4		
Question 4	60	94	34	< .001***	0.61
Question 5	69	83	14	.011*	0.30
Question 6	23	77	54	< .001***	1.06
Question 7	40	82	42	< .001***	0.73
Question 8	58	87	29	< .001***	0.54
Question 9	36	75	39	< .001***	0.69
Question 10	34	71	37	< .001***	0.58
Question 11	39	73	34	< .001***	0.56
Question 12	78	91	13	.024*	0.26
Question 13	78	82	4		
Question 14	86	94	8		
Question 15	47	75	28	< .001***	0.49
Question 16	71	84	13	.032*	0.25
Question 17	62	79	17	.023*	0.26
Question 18	75	90	15	.015*	0.28
Question 19	45	86	41	< .001***	0.78
Question 20	55	82	27	< .001***	0.49

Note. $n = 77$. * 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 18 of the 20 test questions from pre- to posttest. Readers are directed to Table 6 for a complete breakdown of item analysis data for all students.

Table 6

Percentage of All Students Correctly Answering Pre- and Posttest Questions for 2025-2026

	Pretest %	Posttest %	Mean Difference	<i>p</i>	Cohen's <i>d</i>
Question 1	59	84	25	< .001***	0.43
Question 2	74	92	18	< .001***	0.37
Question 3	83	89	6		
Question 4	57	90	33	< .001***	0.56
Question 5	69	81	12	.014*	0.26
Question 6	30	79	49	< .001***	0.97
Question 7	47	83	36	< .001***	0.65
Question 8	61	84	23	< .001***	0.43
Question 9	34	76	42	< .001***	0.70
Question 10	36	69	33	< .001***	0.50
Question 11	45	73	28	< .001***	0.47
Question 12	79	91	12	.021*	0.24
Question 13	78	82	4		
Question 14	83	94	11	.025*	0.23
Question 15	45	77	32	< .001***	0.56
Question 16	73	85	12	.014*	0.26
Question 17	63	82	19	.002**	0.32
Question 18	76	90	14	.009**	0.27
Question 19	45	85	40	< .001***	0.76
Question 20	56	81	25	< .001***	0.46

Note. $n = 96$. * 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

- Banta, T. W., & Palomba, C. A. (2015). *Assessment essentials: Planning, implementing, and improving assessment in higher education* (2nd ed.). Jossey-Bass.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum.
- Kuh, G. D., Ikenberry, S. O., Jankowski, N. A., Cain, T. R., Ewell, P. T., Hutchings, P., & Kinzie, J. (2015). *Using evidence of student learning to improve higher education*. Jossey-Bass.
- Onwuegbuzie, A. J., & Daniel, L. G. (2002). Uses and misuses of the correlation coefficient. *Research in the Schools, 9*(1), 73-90.
- Texas Higher Education Coordinating Board. (2026). *Texas Core Curriculum*.
<https://www.highered.texas.gov/new-program-development/texas-core-curriculum/>