

# Ethics Minor

## Knowledge and Application of Ethical Principles

### Goal Description:

Students participating in the Ethics Minor will gain an understanding of ethical theories and develop skills related to ethical decision making and providing ethical arguments.

**Providing Department:** Ethics Minor

**Progress:** Ongoing

### RELATED ITEMS/ELEMENTS

#### RELATED ITEM LEVEL 1

### Understanding Ethical Theory and Its Applications

#### Learning Objective Description:

As students progress through the Ethics Minor, they will acquire a basic understanding of ethical theory and its applications. As part of this work, they will be introduced to meta ethical questions. The basic information, provided by our introductory courses, serves as the foundation for student success in upper-division courses.

#### RELATED ITEM LEVEL 2

### PHIL 2306 Assessment

#### Indicator Description:

All students in PHIL 2306 will be tested on their knowledge of basic concepts in metaethics, epistemology, and moral theory using a locally standardized pre-test and post-test for each course. Following a review of best practices for the teaching of these courses, a group of Program faculty chose the questions for the assessment. The questions asked cover the range of concepts that are taught in peer departments. Instruction on these concepts promotes a basic competence in metaphysics, epistemology, and moral theory.

The Philosophy Program will review the results to identify areas for potential improvement in student learning outcomes.

#### Criterion Description:

A paired two-sample t-test will be performed on the scores of all students who take the pre-test and the post-test. Students will demonstrate a statistically significant improvement from the pre-test to the post-test.

#### Findings Description:

Our goal of demonstrating a statistically significant improvement from the pre-test to the post-test was achieved.

The following analysis was helpfully done by the Office of Academic Planning and Assessment:

A total of 153 students took the pretest, and a total of 48 students took the posttest for all sections of PHIL 2306: Contemporary Moral Issues for the 2021-2022 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 32 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. The decision was made to not disaggregate face-to-face and online student data, as only six of the 32 students were enrolled in an online course.

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. All four of the standardized skewness and kurtosis coefficients were within the limits of normality of  $\pm 3$ . Therefore, a parametric dependent samples *t*-test was used to analyze the student performance data. A complete breakdown of the standardized skewness and kurtosis coefficients is in Table 1.

**Table 1**

<i>Standardized Skewness and Kurtosis Values for Student Pre- and Posttest Scores</i>	Standardized Skewness Coefficient	Standardized Kurtosis Coefficient
Pretest	-0.74	-1.07
Posttest	-1.68	0.84

A parametric dependent samples *t*-test revealed a statistically significant difference between the pre- to posttest scores for students enrolled in all sections of PHIL 2306: Contemporary Moral Issues for the 2021-2022 academic year,  $t(31) = -3.39, p < .002$ . This difference represented a small effect size (Cohen's *d*) of 0.44 (Cohen, 1988). The average student score increased from 61.38% to 69.38%, for an increase of 8.00%. This equated to an average increase of 2.00 questions answered correctly from pre- to posttest.

<i>Descriptive Statistics for Student Pre- and Posttest Scores on Course-Embedded Test in PHIL 2306: Contemporary Moral Issues for 2021-2022 Test Version</i>	<i>M</i>	<i>SD</i>	<i>M %</i>	<i>SD %</i>
Pretest Scores	15.344	7.756	61.38	18.00
Posttest Scores	17.344	4.416	69.38	17.65

In addition an item analysis of student pre- and post-test performance on individual test questions was performed. This item analysis revealed that students scored statistically significantly higher on 4 of the 25 test questions (Questions 7, 9, 12, and 24) from pre- to posttest. See the table below for a complete breakdown of item analysis data (for face-to-face students).

<i>Percentage of Students Correctly Answering Pre- and Posttest Questions for 2021-2022</i>	Posttest %	Mean Difference	<i>p</i>	Cohen's <i>d</i>
Question 1	56	63	7	0.625
Question 2	75	91	16	0.057
Question 3	66	53	(13)	0.255
Question 4	97	94	(3)	0.572
Question 5	59	72	13	0.103
Question 6	88	69	(19)	0.056
Question 7	22	50	28	0.002** 0.60
Question 8	22	38	16	0.231
Question 9	38	75	37	<.001*** 0.79
Question 10	25	34	9	0.325

Question 11	75	66	(9)	0.374
Question 12	34	81	47	<.001*** 1.06
Question 13	31	53	22	0.070
Question 14	75	81	6	0.572
Question 15	84	88	4	0.712
Question 16	53	59	6	0.536
Question 17	59	59	0	1.000
Question 18	78	75	(3)	0.712
Question 19	63	69	6	0.601
Question 20	75	81	6	0.536
Question 21	78	59	(19)	0.056
Question 22	91	88	(3)	0.712
Question 23	75	88	13	0.161
Question 24	47	72	25	0.009** 0.52
Question 25	69	78	9	0.325

Attached is the complete OAPA report for Phil 2306.

Attached Files

 [PHIL 2306 2021-2022 OAPA Report.pdf](#)

#### RELATED ITEM LEVEL 3

##### **PHIL 2306 Assessment**

##### **Action Description:**

In AY 2021-2022 the Philosophy faculty made updates to the Phil 2306 assessment. The Program will institute this new, updated version of the assessment in all sections of Phil 2306 in Fall 2022.

We will continue our attempts to improve student participation in the pre- and post- assessment.

We will again aim for a statistically significant improvement in post- test scores when compared to pre- test scores.

#### RELATED ITEM LEVEL 2

##### **Phil 2303 Assessment**

##### **Indicator Description:**

Critical thinking is a key component in moral reasoning. All students who take PHIL 2303 will be tested on their critical thinking skills. All faculty who teach PHIL 2303 will administer the Texas Assessment of Critical Thinking Skill (TACTS), an externally validated test of critical thinking skills, in a pre-test/post-test format. The TACTS is a broad-based assessment of critical thinking skills that goes beyond the current scope of PHIL 2303. This will allow the faculty to determine areas that may be added to our current curriculum in the future. In addition, it allows for substantial flexibility in what is taught, thereby ensuring academic freedom for instructors to design individual sections around their own expertise and interests.

##### **Criterion Description:**

A paired two-sample t-test will be performed on the scores of all students who take the pre-test and the post-test. The philosophy program expects to see a statistically significant improvement from the pre-test to the post-test.

### Findings Description:

Our goal of demonstrating a statistically significant improvement from the pre-test to the post-test was achieved.

The following analysis was helpfully provided by the Office of Academic Planning and Assessment:

A total of 385 students took the pretest, and a total of 246 students took the posttest for all sections of PHIL 2303: Critical Thinking for the 2021-2022 academic year; however, not all student test scores were used for analysis. To determine whether student performance increased from pre- 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 167 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. All four of the standardized skewness and kurtosis coefficients were within the limits of normality of  $\pm 3$  (Onwuegbuzie & Daniel, 2002) for the online student population, and three of the four coefficients were within the limits of normality for the face-to-face and combined student populations. Therefore, a parametric dependent samples *t*-test was used to analyze the student performance data for the combined populations. A complete breakdown of the standardized skewness and kurtosis coefficients is in Table 1.

**Table 1**

<i>Standardized Skewness and Kurtosis Values for Student Pre- and Posttest Scores</i>	<i>Standardized Student Population</i>	<i>Standardized Skewness Coefficient</i>	<i>Standardized Kurtosis Coefficient</i>
<b>Face-to-Face Students</b>			
Pretest		2.95	2.71
Posttest		3.48	2.48
<b>Online Students</b>			
Pretest		1.15	1.04
Posttest		0.12	-0.89
<b>All Students</b>			
Pretest		3.20	2.96
Posttest		1.96	2.04

A parametric dependent samples *t*-test revealed a statistically significant difference between the pre- to posttest scores for students enrolled in face-to-face sections of PHIL 2303: Critical Thinking for the 2021-2022 academic year,  $t(114) = -3.56, p < .001$ . This difference represented a small effect size (Cohen's *d*) of 0.31 (Cohen, 1988). The average student score increased from 34.17% to 37.83%, for an increase of 3.66%. This equated to an average increase of 0.74 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 M SD M % SD*  
*Test in PHIL 2303: Critical Thinking for 2021-2022 (Face-to-Face) Test Version %*

Pretest Scores	6.832.4434.1712.17
Posttest Scores	7.572.2737.8311.36

A parametric dependent samples *t*-test revealed no statistically significant differences between the pre- to posttest scores for students enrolled in online sections of PHIL 2303: Critical Thinking for the 2021-2022 academic year,  $t(51) = 0.78, p = 0.438$ . The average student score decreased from 30.48% to 29.23%, for a decrease of 1.25%. This equated to an average decrease of 0.25 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 M SD M % SD*  
*Test in PHIL 2303: Critical Thinking for 2021-2022 (Online) Test Version %*

Pretest Scores	6.102.2530.4811.26
Posttest Scores	5.852.4129.2312.06

**Table 4**

*Descriptive Statistics for Student Pre- and Posttest Scores on Course-Embedded M SD M % SD*  
*Test in PHIL 2303: Critical Thinking for 2021-2022 (All Students) Test Version %*

Pretest Scores	6.602.4033.0211.99
Posttest Scores	7.032.4435.1512.22

**Table 5**

<i>Percentage of Face-to-Face Students Correctly Answering Pre- and Posttest Questions for 2021-2022</i>	<i>Posttest Mean</i>	<i>p</i>	<i>Cohen's d</i>
<i>Pretest %</i>	<i>%</i>	<i>Difference</i>	
Question 1	37	68	31 <.001*** 0.65
Question 2	50	44	(6) 0.309
Question 3	12	11	(1) 0.820
Question 4	32	40	8 0.161
Question 5	70	55	(15)0.015* 0.31
Question 6	6	7	1 0.783
Question 7	18	25	7 0.117

Question 8	24	34	10	0.086
Question 9	28	50	22	<.001*** 0.46
Question 10	8	14	6	0.127
Question 11	31	41	10	0.109
Question 12	23	27	4	0.519
Question 13	77	74	(3)	0.482
Question 14	13	10	(3)	0.534
Question 15	17	3	(14)	<.001*** 0.49
Question 16	63	70	7	0.117
Question 17	34	36	2	0.764
Question 18	35	39	4	0.468
Question 19	29	23	(6)	0.345
Question 20	76	85	9	0.055

An item analysis for students in online sections revealed no statistically significant differences from pre- to posttest. Readers are directed to Table 6 for a complete breakdown of item analysis data for online students.

**Table 6**

<i>Percentage of Online Students Correctly Answering Pre- and Posttest Questions for 2021-2022 Pretest %</i>	Posttest %	Mean Difference	<i>p</i>	Cohen's d
Question 1	13	23	10	0.133
Question 2	48	46	(2)	0.837
Question 3	15	13	(2)	0.766
Question 4	37	27	(10)	0.200
Question 5	50	46	(4)	0.659
Question 6	12	8	(4)	0.485
Question 7	17	12	(5)	0.371
Question 8	13	13	0	1.000
Question 9	37	42	5	0.537
Question 10	13	12	(1)	0.742
Question 11	27	27	0	1.000
Question 12	17	15	(2)	0.766
Question 13	52	58	6	0.472
Question 14	19	17	(2)	0.766

Question 15	19	8	(11)0.083
Question 16	65	56	(9) 0.341
Question 17	17	29	12 0.135
Question 18	44	38	(6) 0.497
Question 19	23	33	10 0.229
Question 20	69	62	(7) 0.322

An item analysis for students in all sections combined revealed that face-to-face and online students scored statistically significantly higher on 2 of the 20 test questions (Questions 1 and 9) from pre- to posttest, as well as statistically significantly lower on 2 of the 20 test questions (Questions 5 and 15). Readers are directed to Table 7 for a complete breakdown of item analysis data for all students.

**Table 7**

<i>Percentage of All Students Correctly Answering Pre- and Posttest Questions for 2021-2022 Pretest %</i>	Posttest %	Mean Difference	<i>p</i>	Cohen's d
Question 1	30	54	24	<.001*** 0.50
Question 2	50	45	(5)	0.340
Question 3	13	12	(1)	0.716
Question 4	34	36	2	0.594
Question 5	63	52	(11)	0.022* 0.22
Question 6	8	7	(1)	0.828
Question 7	18	21	3	0.413
Question 8	21	28	7	0.124
Question 9	31	48	17	<.001*** 0.35
Question 10	10	13	3	0.275
Question 11	30	37	7	0.180
Question 12	22	23	1	0.670
Question 13	69	69	0	0.887
Question 14	15	13	(2)	0.484
Question 15	17	4	(13)	<.001*** 0.43
Question 16	63	65	2	0.682
Question 17	29	34	5	0.303
Question 18	38	39	1	0.806
Question 19	27	26	(1)	0.895
Question 20	74	78	4	0.319

Attached Files

 [PHIL 2303 \(TACTS\) 2021-2022 Report.pdf](#)

#### RELATED ITEM LEVEL 3

##### **Action - PHIL 2303 Assessment**

###### **Action Description:**

The Phil 2303 assessment showed a statistically significant improvement of student post-test scores compared to pre-test scores overall among students across all sections. However, when online and face-to-face sections are disaggregated, a statistically significant improvement is seen only in face-to-face sections.

The Philosophy Program will hold training sessions with faculty exploring pedagogical strategies to address these concerns.

We will again aim for a statistically significant improvement in post- test scores when compared to pre- test scores.

#### RELATED ITEM LEVEL 2

##### **Phil 4363 Assessment**

###### **Indicator Description:**

During the fall semester, the new Phil 4363 assessment instrument was deployed as a pre-assessment in the first week of class and as a post-assessment in the last week of class. This tool was built to measure student learning of advanced moral principles and concepts covered in Ethical Theories. A copy of the instrument and rubric used to grade it is attached.

The Philosophy Program will review the results to identify areas for potential improvement in student learning outcomes. The program faculty will also identify and execute any improvements that can be made to the new Phil 4363 assessment tool as necessary.

Attached Files

 [Phil 4363 Assessment.docx](#)

 [Phil 4363 Assessment Rubric.docx](#)

###### **Criterion Description:**

A paired two-sample t-test will be performed on the scores of all students who take the pre-and the post-assessments. Students will demonstrate a statistically significant improvement from the pre-test to the post-test.

###### **Findings Description:**

Our goal of demonstrating a statistically significant improvement from pre-test to post-test was satisfied.

A total of 17 students took the pre-test and 16 students took the post-test (out of a total of 23 enrolled in the course). Of these students, 13 took both the pre- and post- test. All statistical analyses were performed only on those students who took both pre-and post-tests.

A parametric dependent samples *t*-test revealed a statistically significant difference between the pre- to post-test scores for students enrolled in Phil 4363 in Fall 2022. The average student score on the pre-test was 21.05 out of 50 (42%); the average student score on the post-test was 31.12 out of 50 (62%). The average student thus increased their score by 10.08 points (20%) from pre- to post-test. This is a statistically significant increase ( $p = 0.0182$ ). See table 1.

#### **Table 1**

Test Version	M	SD	M%	SD%
Pre-Test Scores	21.08	5.89	42%	12%
Post-Test Scores	31.15	11.16	62%	22%

Note: N=13.

We can glean further information regarding student performance, and about the assessment as a whole, by analyzing student pre- and post- assessment performance for the student population on each individual test question. This item analysis revealed that students scored statistically significantly higher on 5 of the 10 post-assessment questions when compared to performance on the pre-assessment ( $p \leq 0.05$ ). These were questions 2, 4, 6, 7, and 8. The item analysis also revealed that students did worse on question 5, though this difference was not statistically significant. See Table 2.

**Table 2**

*Item analysis of pre- and post- assessment performance for student population on each individual question.*

Question	Pre-Test Mean	Pre-Test Mean %	Post-Test Mean	Post-Test Mean %	Mean Difference	Mean % Difference	<i>p</i>
1a	2.231	45%	2.846	57%	0.615	12%	0.337
1b	2.231	45%	2.692	54%	0.462	9%	0.508
1c	2.077	42%	2.538	51%	0.462	9%	0.323
2	1.846	37%	3.615	72%	1.769	35%	0.001
3	2.846	57%	3.308	66%	0.462	9%	0.427
4	1.615	32%	3.231	65%	1.615	32%	0.001
5	3.692	74%	3.154	63%	-0.538	-11%	0.347
6	1.538	31%	3.154	63%	1.615	32%	0.003
7	1.154	23%	2.769	55%	1.615	32%	0.006
8	1.846	37%	3.846	77%	2.000	40%	0.024

Note: n=13. Questions 2, 4, 6, 7, and 8 showed a statistically significant increase from pre- to post-assessment. Question 5 showed a decrease from pre- to post-assessment, but one that was not statistically significant.

## Discussion

The analysis of the 4363 pre- and post assessment results strongly suggests that students exited Phil 4363 with greater content-knowledge in ethical theory than when they entered. In particular the areas of statistically significant improvement were in the following sub-areas of ethical theory:

- Utilitarian value theory (question 2)
- Act and rule utilitarianism (question 4)
- Moral pluralism (question 6)
- Doctrine of double effect (question 7)
- Aristotelian virtue ethics (question 8)

The question on which students scored worse overall was question 5, about deontological ethics. We suspect that the question was phrased in a way that was too specific and offered too much detail in the stem, leading to a lot of noise in the pre- assessment.

Questions which showed improvement that was not statistically significant were questions 1a-1c, and question 3. 1a-1c were questions about basic moral concepts. While students as a whole did better, there seemed to be general confusion about what the question stems were asking. Question 3 asked for an explanation of the utilitarian “principle of utility”. We suspect that there was no statistically significant improvement on this question because a significant number of students already entered the course with basic understanding of this principle.

See attached report and excel spreadsheet.

Attached Files

 [Phil 4363 Assessment Report Fall 2021 .docx](#)

 [2021 Phil 4363 Assessment Data.xlsx](#)

### RELATED ITEM LEVEL 3

#### **Action - Phil 4363 Assessment**

##### **Action Description:**

Ethics minor faculty will make adjustments to the Phil 4363 assessment to resolve ambiguities in the assessment that may have contributed to a lack of statistically significant improvement in certain questions. This new assessment will be used in Fall 2022.

Faculty teaching Phil 4363 will also use strategies in Fall 2022 to increase student participation in the pre- and post-assessment.

### RELATED ITEM LEVEL 1

#### **Develop and Implement a Cohesive Assessment Plan**

##### **Performance Objective Description:**

The program will develop a cohesive assessment plan for the Ethics Minor and implement it to begin gathering data on student learning outcomes beginning with Fall 2021 classes.

### RELATED ITEM LEVEL 2

#### **Develop and Implement a Cohesive Assessment Plan**

##### **KPI Description:**

The Philosophy Program faculty will develop and implement a cohesive assessment plan for the Ethics Minor prior to Fall 2021. This plan will build on the existing assessment efforts in PHIL 2306 to document student learning and identify areas for continuous improvement. The program will consider these efforts successful if it is able to begin its new assessment efforts starting in Fall 2021.

**Target Description:**

The program will consider our efforts successful if it is able to begin its new assessment efforts starting in Fall 2021.

**Results Description:**

The Philosophy Program succeeded in this objective.

The program created a cohesive assessment plan for the Ethics minor which went into effect in Fall 2021. The plan calls for assessing the three required courses for the minor: Critical Thinking, Contemporary Moral Issues, and Ethical Theories. The assessment of Critical Thinking and Contemporary Moral Issues used the already ongoing assessments of those courses used for the Philosophy Major and Minor assessment plans. The program in addition created an assessment for Ethical Theories which went into effect in Fall 2021.

**RELATED ITEM LEVEL 3**

**Develop and Implement a Cohesive Assessment Plan**

**Action Description:**

The faculty will evaluate the assessments for Phil 2306 and Phil 4363 and make update the assessments to better reflect material learned across the different sections offered of these courses. The new versions of these assessments will used in Fall 2022.

## **Update to Previous Cycle's Plan for Continuous Improvement Item**

### **Previous Cycle's Plan For Continuous Improvement (Do Not Modify):**

#### **Closing Summary**

Over the coming academic year, ethics minor faculty will evaluate how the new ethics minor assessment plan faired. In particular, faculty will do the following:

1. Continue to gather data on PHIL 2306 using existing instrument;
2. Deploy newly developed instrument for PHIL 4363 to assess progress in understanding of moral theory;
3. Identify and execute any improvements that can be made to the new Phil 4363 assessment tool as necessary;
4. Include Phil 2303 assessment to assess progress in student critical thinking, a key component in effective moral reasoning;
5. Faculty will create strategies to increase the student response rate for the Phil 2306 assessment. For face-to-face classes, professors will set aside class time for students to respond to the assessment using their electronic devices. For online classes, professors will send out more reminders to students to take the assessment, emphasizing the importance of the assessment for improving our classes.

### **Update of Progress to the Previous Cycle's PCI:**

1. In Fall 2021 and Spring 2022, faculty continued to gather data on Phil 2306 using the existing instrument. **Objective completed.**
2. In Fall 2021, faculty deployed a newly developed instrument for Phil 4363 to assess progress in understanding of moral theory. **Objective completed**
3. Faculty have identified and executed improvements that can be made to the new Phil 4363 assessment tool. In particular, faculty removed question 1a-1c that were poorly worded and ambiguous. Faculty removed the question about Kant's formula of humanity and replaced it with the following question: "Briefly describe how deontology differs from consequentialism." Faculty also added a question: "with

a simple “yes” or “no”, have you previously taken a course that covers ethical theory?" We hope that this new question will help us identify the extent to which Ethical Theories helps students who have already taken an ethics class learn *more* about ethics. It will also help us collect an important piece of data about students in this class. **Objective completed.**

4. Phil 2303 was included in the assessment plan for AY 2021-2022. **Objective completed.**
5. At the beginning of Fall and Spring semester, philosophy faculty held a meeting to discuss increasing student participation in in the Phil 2306 assessment. Faculty created strategies to increase the student response rate for the Phil 2306 assessment. For face-to-face classes, professors set aside class time for students to respond to the assessment using their electronic devices. For online classes, professors sent out more reminders to students to take the assessment, emphasizing the importance of the assessment for improving our classes. While faculty were able to increase student participation in the assessment, the improvement was not large enough to say that we completed the objective. A big area in need of improvement is Online Student participation. It is the opinion of the ethics minor assessment team that the reason for this is that the assessment occurs outside of the Blackboard course, and faculty have no ability to identify and target individual students who have not participated in the assessment. **Objective not completed.**

## **New Plan for Continuous Improvement Item**

### **Closing Summary:**

1. Deploy newly updated Phil 2306 assessment beginning Fall 2022 and gather data in all sections of Phil 2306.
2. Deploy newly updated Phil 4363 assessment in Fall 2022 section of course.
3. Continue to collect data on assessments for Phil 2303, 2306, and 4363.
4. Create strategies for increasing student participation in online sections of Phil 2303.
5. Create strategies for increasing student participation in online sections of Phil 2306.
6. Create strategies for increasing student participation in online sections of Phil 4363.
7. Identify teaching techniques to implement in Phil 4363 to increase student learning and retainment of information.