

Moral and Ethical Development Case Study

June 2018

Table of Contents

Executive Summary
Introduction
Sample and Respondent Characteristics
Case Study7
Figure 1: Case Study Decision
Figure 2: Commitment to Case Study Decision
Table 1: Frequency of Case Study Response Reasons9
Table 2: Pre-Test Level of Importance Assigned to Chosen Response Reasons 10
Table 3: Post-Test Level of Importance Assigned to Chosen Response Reasons 11
Table 4: Case Study Aggregate Level Scores 12
Table 5: Case Study Aggregate Level Score Descriptive Statistics
Table 6: Case Study Paired-Sample t-tests 13
Moral Foundations Questionnaire (MFQ20)
Table 7: Moral Foundations Questionnaire – Factor Comparisons 15
Table 8: Moral Foundations Questionnaire – Care/Harm
Table 9: Moral Foundations Questionnaire – Fairness/Cheating
Table 10: Moral Foundations Questionnaire – Loyalty/Betrayal
Table 11: Moral Foundations Questionnaire – Authority/Subversion
Table 12: Moral Foundations Questionnaire – Sanctity/Degradation
Table 13: Correlations of MFQ Averages and Self-Reported Rankings 18
Personal and Social Responsibility Inventory
Table 14: Academic Integrity 20
Table 15: Academic Integrity (cont.) 20
Table 16: Perspective Taking21
Table 17: Perspective Taking (cont.) 22
Table 18: Ethical and Moral Reasoning
Table 19: PSRI Factor and Item Means and Standard Deviations 24
Conclusion

Executive Summary

This report demonstrated the following key findings:

Student Learning Outcomes

- 1. Approximately 83% of students surveyed indicated that cheating should be reported to the professor in the case study.
- 2. Nearly two-thirds of respondents in both the pre- and post-test indicated a high-level of commitment (e.g., very committed or extremely committed) to their decision regarding whether to report a cheating classmate to the professor. See Figure 2.
- 3. Overall, the three most influential decision factors included "Cheating is against the class rules" (lower-level, or Level 1 reasoning), "Tim does not deserve an academic scholarship if he cheats" (mid-level, or Level 2 reasoning), and "Maria believes cheating is morally wrong" (upper-level, or Level 3 reasoning). Approximately 62% to 89% of the respondents who identified each of those decision factors indicated the decision factor was very important. See Table 2 and Table 3.
- 4. Overall, the students indicated increases in all three levels of reasoning. Additionally, student responses indicated increased consistency in their Level 1 prioritization of influences. See Table 5.
- 5. Of the five moral foundations ranked and scored in the pre-test, the care/harm scale and the fairness/cheating scale had the highest average rating among students. See Table 7.
- 6. There were relatively strong correlations (.540-.594) between students' computed scores on the five moral foundations and their self-reported rankings of the importance of the five foundations when considering what is right and wrong. See Table 13.

Personal and Social Responsibility Items for QEP Progress Tracking

- 1. More than 8 out of 10 students agreed somewhat or strongly agreed that their experiences at St. Philip's College increased their ability to learn from diverse perspectives. See Table 17.
- Approximately 8 out of 10 students agreed somewhat or strongly agreed that their experiences at St. Philip's College helped them develop a better understanding of academic integrity. See Table 14.
- 3. More than 8 out of 10 students agreed somewhat or strongly agreed that faculty at St. Philip's College understand the campus academic policies. See Table 14.
- 4. More than 8 out of 10 students indicated that faculty at St. Philip's College often or almost always reinforce the campus academic policies. See Table 15.
- 5. Approximately 8 out of 10 students agreed somewhat or strongly agreed that helping students recognize the importance of taking seriously the perspectives of others is a major focus of St. Philip's College. See Table 16.
- 6. More than 8 out of 10 students agreed somewhat or strongly agreed that faculty at St. Philip's College help students think through new and challenging ideas or perspectives. See Table 16.

- 7. Approximately 8 out of 10 students agreed somewhat or strongly agreed that St. Philip's College has high expectations for students in terms of their ability to take seriously the perspectives of others, especially those with whom they disagree. See Table 16.
- 8. Approximately 8 out of 10 students agreed somewhat or strongly agreed that helping students develop their ethical and moral reasoning is a major focus of St. Philip's College. See Table 18.
- 9. Approximately 8 out of 10 students agreed somewhat or strongly agreed that St. Philip's College helps students develop their ethical and moral reasoning, including the ability to express and act upon personal values responsibly. See Table 18.
- 10. Approximately 8 out of 10 students agreed somewhat or strongly agreed that St. Philip's College provides opportunities for students to develop their ethical and moral reasoning in their academic work. See Table 18.

Students' Perceptions of Campus Climate for Personal and Social Responsibility

- 1. Students generally had positive perceptions of the campus climate factor related to faculty roles in academic integrity at St. Philip's College. See Table 19. The average student rating on the climate factor was 4.45 out of 5. This indicated that most students the institution more positively (i.e., above the neutral point of the scale). Low variability indicated that students tended to agree about their perceptions of climate.
- 2. Students generally had positive perceptions of the campus climate factor related to the importance of perspective taking at St. Philip's College. See Table 19. The average student rating on the climate factor was 4.16 out of 5, with a variance below 1 point on the 5-point scale. This indicated that most students the institution more positively (i.e., above the neutral point of the scale). Relatively low variability indicated that students tended to agree about their perceptions of climate.
- 3. Students generally had positive perceptions of the campus climate factor related to developing ethical and moral reasoning at St. Philip's College. See Table 19. The average student rating on the climate factor was 4.19 out of 5. This indicated that most students the institution more positively (i.e., above the neutral point of the scale). Relatively low variability indicated that students tended to agree about their perceptions of climate.

Introduction

These assessments provides data to support the St. Philip's College Quality Enhancement Plan (QEP) and Student Leaning Outcomes Assessment. We ask students to examine their values as part of understanding their ethical and moral development.

The assessment consists of three parts, which were assembled to align with the three student learning outcomes outlined in the St. Philip's College QEP:

- 1. Students gain the skills to assess their own values and the origins of those values (e.g., fairness, respect)
- 2. Students identify and know about ethical issues (e.g., academic integrity, broad issues)
- 3. Students analyze ethical perspectives (e.g., how perspectives might differ by character)

The following components comprise the St. Philip's assessment:

- 1. *An original case study* was developed using Lawrence Kohlberg's theory of moral development, as well as the AAC&U Characteristic Traits of the Dimensions document. The case study asked students to consider an incident of academic dishonesty, make a decision, and provide their reasoning for the decision.
- 2. *Items and factors from the Personal and Social Responsibility Inventory* (PSRI) were selected by a team of assessment professionals at St. Philip's College to evaluate students' perceptions of the campus climate. The PSRI is a nationally-administered climate instrument designed to assess students' perceptions of institutional support and opportunities for education in personal and social responsibility.
- 3. *The Moral Foundations Questionnaire* (MFQ) was selected as a way through which to assess the student values from a different conceptual lens than Kohlberg. Jonathan Haidt, the social psychologist who created the instrument, suggests that societies develop their moral systems from five foundations: harm/care, fairness/reciprocity, loyalty/betrayal, authority/subversion, and sanctity/degradation.

Table A outlines how each step and task intentionally correspond to the three outcomes, as well as the rationale for each decision.

Survey Methodology

The assessment was delivered online to 14,404 students for both the pre- and post-tests – all data were collected electronically through the Qualtrics platform. The students were contacted through email with a personalized message inviting them to complete an electronic survey. Each student was assigned an individual link, which allowed them to start, leave, and return to the survey without losing progress.

The pre-test was administered in late-August 2017. The pre-test included the case study and the MFQ. Students who had not completed the survey received up to six reminders throughout the fall semester, ending in early November. Of the 14,404 students invited to complete the pre-test, 743 responded. The post-test was administered in mid-February 2018. For the post-test, two surveys were administered. The first survey, which included both the case study and the PSRI factors and items, was distributed to students who had completed the pre-test. The second survey, which included only PSRI factors and items, was administered to the rest of the sample. Again, students who had not completed the assessments received up to six reminders through November and early December. There were 323 total respondents to both post-test surveys, with 165 students responding the first post-test, which included the case study and PSRI items, and 158 students responding to the second post-test, which included the standalone PSRI

factors and items. Two post-tests were used in the assessment to maximize data collection from the sample without collecting unnecessary data from students. All students received the PSRI items, but only those students who completed the pre-test case study received the post-test case study.

The Moral Foundations Questionnaire was designed with two "catch" items meant to identify students who (a) do not read and consider the questions as they answer or (b) respond in a pattern (e.g. responding solely with the extreme ends of a scale). Once identified, these students are removed from the analysis. The two items asked (a) whether or not someone was good at math; and (b) it is better to do good than bad.

Of the 743 students who provided a response for "whether or not someone was good at math" on the pretest, 231 were removed from the analysis for selecting somewhat relevant, very relevant, or extremely relevant. Similarly, of the 743 students who provided a response for "it is better to do good than bad," 30 were removed for selecting slightly disagree, moderately disagree, or strongly disagree.

Note on Assessing Change over Time

While change can be assessed over time using a pre-post design around specified experiences, we would not expect major change over the short period of time (i.e., several months) between the pre- and post-assessments. We expect to be able to chart student progress over several years of data.

	Step and task	Rationale	Outcome
1.	Students read a scenario and make a decision	Step 1 allows students to consider and react to an ethical issue	2 – issues 3 – perspectives
2.	Students identify and rank three items that influenced their decision	Step 2 allows us to see what values are influencing students decisions	1 – values 3 – perspectives
3.	Students rate their commitment to the decision they made in Step 1	Step 3 allows us to understand their commitment to the decision	1 - values
4.	Students complete the MFQ Short Form, a psychometrically sound instrument that identifies which of five values inform decision-making processes.	Step 4 allows us to understand broader foundations in students values	1 – values 2 – issues 3 – perspectives
5.	Students rank five statements, which align with the previously assessed moral foundations. The survey does not indicate to the student that the previous 20 questions form five foundations.	Steps 4 allows us to understand broader foundations in students' values, as well as the congruence between what they believe influences their decisions (ranking in Step 5) and what we have found influences their decisions (Step 4)	1 - values

The assessment aligned with the three student learning outcomes outlined in the St. Philip's College QEP:

- 1. Students gain the skills to assess their own values and the origins of those values (e.g., fairness, respect)
- 2. Students identify and know about ethical issues (e.g., academic integrity, broad issues)
- 3. Students analyze ethical perspectives (e.g., how perspectives might differ by character)

Sample and Respondent Characteristics

	Initial	Initial Sample		Respondents		
		-	Pre	-Test		-Test ¹
	N	%	n	%	n	%
Gender						
Male	6168	43%	260	35%	112	35%
Female	8133	57%	483	65%	211	65%
Not Reported	103	1%	-	-	-	-
Total	14404	100%	743	100%	323	100%
Class Year						
First Year	8373	58%	387	52%	136	42%
Second Year	6031	42%	356	48%	187	58%
Not Reported	-	-	-	-	-	-
Total	14404	100%	743	100%	323	100%
Race						
American Indian/Alaska Native	33	*	1	*	1	*
Asian or Pacific Islander	138	1%	14	2%	4	1%
Black or African American	639	4%	38	5%	16	5%
Hispanic	2785	19%	152	21%	78	24%
International	5	*	-	-	-	-
White Non-Hispanic	1351	9%	81	11%	34	11%
Two or More Races	7	*	-	-	-	-
Other	256	2%	28	4%	9	3%
Unknown or Not Reported	9172	64%	429	58%	181	56%
Total	14404	100%	743	100%	323	100%
Status						
Full-Time	2370	17%	244	33%	92	29%
Part-Time	12034	84%	499	67%	231	72%
Not Reported	-	-	-	-	-	-
Total	14404	100%	743	100%	323	100%

Note: Items with * instead of a percentage rounded to 0%. Some items may not total 100% due to rounding.

¹ Post-test sample includes the students who received both the case study and the PSRI climate items as well as the students who received only the climate items.

This table presents response frequencies in relation to the overall panel provided by St. Philip's College, with the pre-test administration garnering a response rate of 5.1% and the post-test administration garnering a response rate of 2.2% (the post-test response rate among those who had previously completed the pre-test was 43.5%).

Case Study

This case study and the subsequent value ranking items were designed with Lawrence Kohlberg's theory of moral development as a foundation (Evans, Forney, Guido, Patton, & Renn, 2010), as well as the AAC&U Characteristic Traits of the Dimensions document. Rohan (2000) suggested that value identification, value prioritization, and the consistency of prioritization over time are good measures of personal value development. Based on Rohan's research and the QEP student learning outcomes, the case study included opportunities for students to identify values and prioritize influences. The case study additional measures also allow us to better understand change overtime at St. Philip's College.

The case study was administered online, and students were asked to make a decision based upon a scenario involving academic integrity. This process provides an opportunity for respondents to consider and react to an ethical issue. The selection of reasons for their initial decision provides potential opportunities to see what values are shaping student decisions and where students generally stand within the stages of moral development.

Text of the Case Study

Maria has spent the past two weeks studying hard for her final exam. Every night, Maria's friends knew they could find her in the library or at a local coffee shop pouring over notes, flashcards, and various textbooks. On the day of the exam, Maria felt confident that her hard work would pay off. She sat at her usual desk and greeted her good friend Tim as he sat at an adjacent desk. Maria had offered to study with Tim multiple times over the past two weeks, and each time he declined. Tim asked Maria how much she had studied for the test. After she responded, Tim slouched in his chair and said that he didn't study much at all. Tim had another important test in his major subject tomorrow, he said, which took up more of his time. He was a little worried, as he had an academic scholarship to maintain.

At the start of the exam, the professor handed out the exams and sat at the front of the room. Ten minutes later, the professor's phone rang: It was an important call from his son. The professor stepped outside to speak with his son. After the door closed, Maria looked up and noticed that, once the professor had left the room, Tim had pulled a sheet of class notes from his pocket to help answer the questions. Maria was annoyed – after all, she had spent innumerable hours studying for this exam, while Tim had not put in any effort. Tim completed his exam using his notes, and handed it in once the professor returned. As Maria stood up to hand in her exam, she considered informing the professor of Tim's cheating.

References

Evans, N. J., Forney, D. S., Guido, F. M., Patton, L. D., & Renn, K. A. (2010). *Student development in college: Theory, research, and practice* (2nd ed.). San Francisco, CA: Jossey-Bass.

Rohan, M. J. (2000). A rose by any name? The values construct. *Personality and Social Psychology Review*, 4(3), 255-277.

A student's decision whether Maria should tell the professor of Tim's cheating does not represent their level of moral reasoning; however, the question frames later reasoning decisions, especially when students are asked to select and rank reasons for their decision.

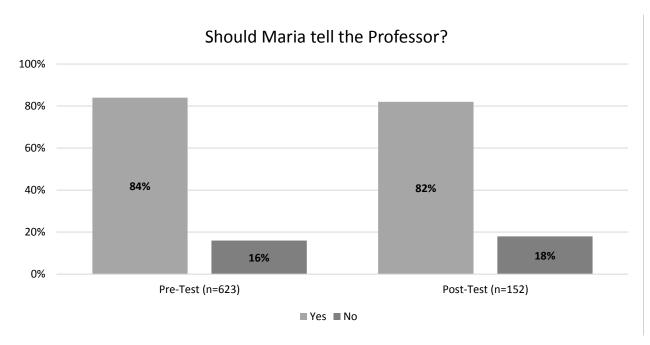
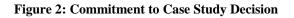
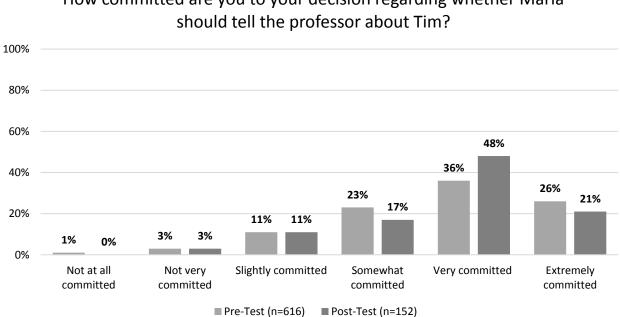


Figure 1: Case Study Decision





How committed are you to your decision regarding whether Maria

Prior to administering the survey and informed by Kohlberg's understanding of moral development, potential reasons for a decision in the case study were generated in line with three hierarchical levels of moral reasoning. Level 1 reasons are rooted in concrete perspectives, which are individually-focused and responsive to authority. Level 2 reasons align with social roles and expectations, as well as the rule of law. Level 3 reasons reflect the social system as a contract, which protects fundamental human rights and welfare.

Table 1 presents the frequency with which respondents selected each reason as part of their case study response. Respondents could each select 3 reasons - as a result, frequency numbers do not correspond to the number of respondents in each administration. Additionally, more students selected yes on both the pre- and post-test, which means that yes-leaning reasons were selected more frequently.

Table 1: Frequency of Case Study Response Reasons

	Pre-Test	Post-Test
Level 1 Reasons		
Cheating is against the class rules.	322	73
Tim does not deserve a better grade than Maria.	127	30
Tim's grade doesn't affect Maria's grade.	101	25
Tim will no longer be Maria's friend.	25	7
Level 2 Reasons		
Tim does not deserve an academic scholarship if he cheats.	247	58
Cheating hurts everyone in the class.	174	53
It is not Maria's job to turn in Tim.	76	17
Reporting Tim will not end all cheating – why bother?	61	17
Level 3 Reasons		
Maria believes cheating is morally wrong.	326	90
Maria compromises her ethics by allowing Tim to cheat.	198	58
It does not matter because learning is more important than good grades.	112	20
It wouldn't be fair for Tim to lose his scholarship because of one mistake.	57	8

Once their reasons were selected, students were then asked to rank how important a particular reason was in coming to their initial decision. The importance scale ranged from not important (1) to very important (4). By ranking the importance of each reason in their decision-making, we can discern what level of reasoning is prioritized.

	Valid	Not	Slightly	Somewhat	Very
	Responses	Important	Important	Important	Important
Level 1 Reasons	Responses	Important	Important	Important	Important
Cheating is against the class rules.	330	3	14	42	271
	100%	1%	4%	13%	82%
Tim does not deserve a better grade than Maria.	127	9	15	29	74
	100%	7%	12%	23%	58%
Tim's grade doesn't affect Maria's grade.	100	8	13	30	49
	100%	8%	13%	30%	49%
Tim will no longer be Maria's friend.	23	4	10	6	3
	100%	17%	44%	26%	13%
Level 2 Reasons					
Tim does not deserve an academic scholarship if he cheats.	245	5	20	45	175
	100%	2%	8%	18%	71%
Cheating hurts everyone in the class.	173	2	14	33	124
	100%	1%	8%	19%	72%
It is not Maria's job to turn in Tim.	74	6	22	21	25
	100%	8%	30%	28%	34%
Reporting Tim will not end all cheating	61	7	18	20	16
– why bother?	100%	12%	30%	33%	26%
Level 3 Reasons					
Maria believes cheating is morally wrong.	324	1	13	56	254
	100%	*	4%	17%	78%
Maria compromises her ethics by allowing Tim to cheat.	197	2	9	40	146
	100%	1%	5%	20%	74%
It does not matter because learning is more important than good grades.	112	5	9	25	73
	100%	5%	8%	22%	65%
It wouldn't be fair for Tim to lose his scholarship because of one mistake.	57	4	15	15	23
	100%	7%	26%	26%	40%

Table 2: Pre-Test Level of Importance Assigned to Chosen Response Reasons

Note: Percentages may not equal 100% because of rounding. Items with * instead of a percentage rounded to 0%.

Scale: (1) Not important to (4) Very important.

Table 3: Post-Test Level of Importance Assigned to Chosen Response Reasons

	Valid	Not	Slightly	Somewhat	Very
	Responses	Important	Important	Important	Important
Level 1 Reasons	Responses	Important	Important	Important	Important
Cheating is against the class rules.	71	0	3	5	63
	100%	*	4%	7%	89%
Tim does not deserve a better grade than Maria.	30	1	3	4	22
	100%	3%	10%	13%	73%
Tim's grade doesn't affect Maria's grade.	25	3	2	11	9
	100%	12%	8%	44%	36%
Tim will no longer be Maria's friend.	7	2	1	2	2
	100%	29%	14%	29%	29%
Level 2 Reasons					
Tim does not deserve an academic scholarship if he cheats.	58	0	5	17	36
	100%	*	9%	29%	62%
Cheating hurts everyone in the class.	52	2	2	10	38
	100%	4%	4%	19%	73%
It is not Maria's job to turn in Tim.	17	1	1	7	8
	100%	6%	6%	41%	47%
Reporting Tim will not end all cheating – why bother?	17	2	5	3	7
	100%	12%	29%	18%	41%
Level 3 Reasons					
Maria believes cheating is morally wrong.	89	1	3	15	70
	100%	1%	3%	17%	79%
Maria compromises her ethics by allowing Tim to cheat.	58	0	2	8	48
	100%	*	3%	5%	29%
It does not matter because learning is more important than good grades.	20	0	1	3	16
	100%	*	5%	15%	80%
It wouldn't be fair for Tim to lose his scholarship because of one mistake.	8	0	1	4	3
	100%	*	13%	50%	38%

Note: Percentages may not equal 100% because of rounding. Items with * instead of a percentage rounded to 0%.

Scale: (1) Not important to (4) Very important.

Case Study Scoring

In order to assess the long-term change in students' responses to the case study dilemma, as well as developments in their reasoning and prioritization, each student respondent was assigned a weighted score for each level of reasoning (1 to 3). The score was calculated using the following steps:

- 1. When a student selected a reason for their decision, they were assigned a 1, 2, or 3 according to the level of moral reasoning associated with the choice. For example, a student who picked two Level 1 reasons and one Level 3 reason would be assigned a 1, 1, and 3.
- 2. Next, the three assigned level values were then multiplied by the prioritization of the respective reason. Prioritization was scaled from 1 (Not important) to 4 (Very important). This product was calculated for all three reason levels and then summed together within level. For example, the student who selected two Level 1 reasons and one Level 3 reason prioritized each reason as 1 (Not important), 2 (Slightly important), and 4 (Very important), respectively. Accordingly, the student received a Level 1 score of 3, a Level 2 score of 0, and a Level 3 score of 12. Scores of 0 were assigned to students who did not select a reason in a particular level.
- 3. Finally, the average score for each level was calculated for the entire institution.

These level scores are useful for assessing change over time. The scores themselves allow us to understand whether students are picking more or fewer reasons from different levels. Additionally, a reduction or increase in the standard deviation (SD) of a score will show whether students are selecting similar or different degrees of prioritization for each level.

Over time, we want to see the mean scores for Level 1 decrease and the scores for Levels 2 and 3 increase, indicating that students are improving their ethical and moral reasoning in response to the case study. We also want to see decreasing SDs over time, meaning that students are becoming more consistent in their prioritization of a given level of reasoning.

	Level 1 Score	Level 2 Score	Level 3 Score
Pre-Test Aggregate	2.74	2.54	3.36
Post-Test Aggregate	2.87	3.02	3.96

Table 4: Case Study Aggregate Level Scores

Table 5: Case Study Aggregate Level Score Descriptive Statistics

]	Pre-Test		Post-Test		st
	n	Μ	SD	n	Μ	SD
Level 1 Score	743	2.74	2.38	165	2.87	2.37
Level 2 Score	743	2.54	2.45	165	3.02	2.60
Level 3 Score	743	3.36	2.89	165	3.96	2.88

There were slight changes in student responses from the pre- to the post-test. Overall, all three scores increased. However, only the standard deviation for Level 1 scores decreased, indicating more unanimity among students in terms of their prioritization of Level 1 reasons.

Analysis of Linked Case Study Scores

In order to assess whether there were statistically significant differences between students' Level scores from the pre- to post-tests, we performed paired-sample t-tests using the 165 students who completed both assessments.

Table 6: Case Study Paired-Sample t-tests

Pair	Mean	SD	t	p-value
Level 1	-0.16	2.97	-0.68	0.50
Level 2	-0.20	2.81	-0.92	0.36
Level 3	0.14	3.69	0.49	0.63

Using a significance level of 0.05, there were no statistically significant changes in mean scores from preto post-test. This result was not unexpected – it would be unlikely to see any statistical shift in scores on moral reasoning over the course of a single semester. It is more likely that change will be evident over the course of years rather than months. This data provides an institutional snapshot that can be used to compare across years.

Moral Foundations Questionnaire (MFQ20)

Haidt and Graham (2007) present a conceptualization of morals different from the work of Lawrence Kohlberg, Carol Gilligan, and James Rest. Their thesis, based on anthropological work, suggests societies develop their moral systems from five foundations. The foundations are harm/care, fairness/reciprocity, loyalty/betrayal, authority/subversion, and sanctity/degradation.

The first foundation exists because humans have developed a natural aversion to suffering, and the harm/care foundation is based on normally developed humans dislike of and empathy toward others' pain. The foundation of fairness/reciprocity is related to justice from human interaction and reciprocal altruism. Loyalty/betrayal examines the tribal nature of groups and ones self-sacrifice for the group. Authority/subversion is concerned with leadership, followership, and individuals' deference to legitimate authority. The final foundation, sanctity/degradation, is tied to emotion of disgust; in this foundation disgust is conceived as socially-related to a particular set of virtues and the purity of individual souls rather than body.

Individuals place different weight on each of the foundations, which shapes their values and moral judgment. Moral foundations theory suggests these five foundations encompass a wide variety of social and ideological differences and are helpful in explaining tensions related to moral issues in society.

Five Foundations

- 1. **Care/harm**: This foundation is related to our long evolution as mammals with attachment systems and an ability to feel (and dislike) the pain of others. It underlies virtues of kindness, gentleness, and nurturance.
- 2. **Fairness/cheating**: This foundation is related to the evolutionary process of reciprocal altruism. It generates ideas of justice, rights, and autonomy.
- 3. **Loyalty/betrayal**: This foundation is related to our long history as tribal creatures able to form shifting coalitions. It underlies virtues of patriotism and self-sacrifice for the group. It is active anytime people feel that it's "one for all, and all for one."
- 4. **Authority/subversion**: This foundation was shaped by our long primate history of hierarchical social interactions. It underlies virtues of leadership and followership, including deference to legitimate authority and respect for traditions.
- 5. **Sanctity/degradation**: This foundation was shaped by the psychology of disgust and contamination. It underlies religious notions of striving to live in an elevated, less carnal, nobler way. It underlies the widespread idea that the body is a temple which can be desecrated by immoral activities and contaminants (an idea not unique to religious traditions).

References

Haidt, J., & Graham, J. (2007). When morality opposes justice: Conservatives have moral intuitions that liberals may not recognize. *Social Justice Research*, 20(1), 98-116.

The Moral Foundations Questionnaire was designed with two "catch" items meant to identify students who (a) do not read and consider the questions as they answer or (b) respond in a pattern (e.g. responding solely with the extreme ends of a scale). Once identified, these students are removed from the analysis. The two items asked (a) whether or not someone was good at math; and (b) it is better to do good than bad

For the following tables, we determined the number of respondents using these catch items. Of the 743 students who provided a response for "whether or not someone was good at math" on the pre-test, 231 were removed from the analysis for selecting somewhat relevant, very relevant, or extremely relevant. Similarly, of the 743 students who provided a response for "it is better to do good than bad," 30 were removed for selecting slightly disagree, moderately disagree, or strongly disagree.

Table 7: Moral Foundations Questionnaire – Factor Comparisons

Foundation	n	М	SD
Care/Harm Foundation Scale	254	3.91	0.98
Fairness/Cheating Foundation Scale	254	3.97	0.96
Loyalty/Betrayal Foundation Scale	254	3.48	1.00
Authority/Subversion Foundation Scale	254	3.58	0.96
Sanctity/Degradation Foundation Scale	254	3.61	1.06

Table 8: Moral Foundations Questionnaire – Care/Harm

	n	Μ	SD
Care/Harm Foundation Scale	254	3.91	0.98
When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking?*			
Whether or not someone suffered emotionally	253	3.78	1.21
Whether or not someone cared for someone weak or vulnerable	254	3.77	1.14
Please read the following sentences and indicate your agreement or disagreement.**			
Compassion for those who are suffering is the most crucial virtue.	243	4.00	1.24
One of the worst things a person can do is hurt a defenseless animal.	242	4.15	1.26

*Responses ranged from, 0 = Not at all relevant to 5 = Extremely relevant

**Responses ranged from, 0 = Strongly disagree to 5 = Strongly Agree

Table 9: Moral Foundations Questionnaire – Fairness/Cheating

	n	Μ	SD
Fairness/Cheating Foundation Scale	254	3.97	0.96
When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking?*			
Whether or not some people were treated differently than others	254	3.90	1.20
Whether or not someone acted unfairly	252	3.80	1.19
Please read the following sentences and indicate your agreement or disagreement.**			
When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.	242	4.16	1.28
Justice is the most important requirement for a society.	241	4.02	1.18

**Responses ranged from, 0 = Strongly disagree to 5 = Strongly Agree

Table 10: Moral Foundations Questionnaire – Loyalty/Betrayal

	n	Μ	SD
Loyalty/Betrayal Foundation Scale	254	3.48	1.00
When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking?*			
Whether or not someone's action showed love for his or her country	252	3.45	1.40
Whether or not someone did something to betray his or her group	251	3.75	1.20
Please read the following sentences and indicate your agreement or disagreement.**			
I am proud of my country's history.	243	3.33	1.55
People should be loyal to their family members, even when they have done something wrong.	243	3.34	1.57

*Responses ranged from, 0 = Not at all relevant to 5 = Extremely relevant

**Responses ranged from, 0 = Strongly disagree to 5 = Strongly Agree

Table 11: Moral Foundations Questionnaire – Authority/Subversion

n	M	SD
254	3.58	0.96
253	3.91	1.20
253	3.29	1.34
241	4.19	1.20
242	2.93	1.68
	253 253 241	253 3.91 253 3.29 241 4.19

*Responses ranged from, 0 = Not at all relevant to 5 = Extremely relevant

**Responses ranged from, 0 = Strongly disagree to 5 = Strongly Agree

Table 12: Moral Foundations Questionnaire – Sanctity/Degradation

	n	М	SD
Sanctity/Degradation Foundation Scale	254	3.61	1.06
When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking?*			
Whether or not someone violated standards of purity and decency	254	3.78	1.20
Whether or not someone did something disgusting	254	3.39	1.46
Please read the following sentences and indicate your agreement or disagreement.**			
People should not do things that are disgusting, even if no one is harmed.	242	3.95	1.29
I would call some acts wrong on the grounds that they are unnatural.	243	3.33	1.41

*Responses ranged from, 0 = Not at all relevant to 5 = Extremely relevant

**Responses ranged from, 0 = Strongly disagree to 5 = Strongly Agree

Self-Assessment of Moral Foundations

In addition to using the Moral Foundations Questionnaire, each student was provided a brief description of each of the five foundations. Students were then asked to, "Please indicate the importance of each when you consider what is right or wrong." This rank-order of each foundation provides students with an opportunity to assess their own "foundations" in ethical and moral decision making (student learning outcome 1).

The rank order of students' self-assessed foundations were compared to student scores on the MFQ using a correlation matrix (see Table 13). A correlation examines the relationship between two variables on a scale from 0 (no relationship) to 1 (identical relationship) – we generally consider a correlation of 0.4 to be relatively strong. In order to assess the relationship between students' self-identified values and their MFQ scores, we expect correlations to increase over time. Such an increase would suggest an increased capacity of students to accurately identify the origins of their values.

Table 13: Correlations of MFQ Averages and Self-Reported Rankings

	Care/Harm <i>Ranking</i>	Fairness/ Cheating <i>Ranking</i>	Loyalty/ Betrayal <i>Ranking</i>	Authority/ Subversion <i>Ranking</i>	Sanctity/ Degradation <i>Ranking</i>
Care/Harm Average	.563	.543	.466	.487	.499
Fairness/Cheating Average	.533	.579	.488	.516	.490
Loyalty/Betrayal Average	.413	.378	.540	.568	.414
Authority/Subversion Average	.416	.421	.406	.562	.444
Sanctity/Degradation Average	.450	.517	.495	.518	.594

Note: All correlations are statistically significant at the 0.01 level.

The highlighted numbers represent the correlation between students' self-identified ranking and the rankorder as determined by their MFQ results. Overall, students demonstrated a relatively strong ability to identify their own ranking of moral foundations as compared with the MFQ assessment.

Personal and Social Responsibility Inventory

A team of assessment professionals at St. Philip's College originally selected 10 items from the Personal and Social Responsibility Inventory (PSRI) as an institutional climate measure for their QEP. The items closely aligned with the student learning outcomes assessment. The PSRI is a nationally-administered climate instrument designed to assess students' perceptions of institutional support and opportunities for education in personal and social responsibility. The PSRI not only provides data for institutional improvement, but also continues exploration into interventions and strategies that will inform a national conversation on ways to strengthen learning for personal and social responsibility. The research emerging from this project informs good practice for the development of personal and social responsibility for all students.

Based upon the 10 PSRI items selected by the St. Philip's College QEP team, three factors from the PSRI dimensions of Cultivating Academic Integrity, Taking Seriously the Perspectives of Others, and Refining Ethical and Moral Reasoning were administered to derive a more comprehensive snapshot of the campus climates for personal and social responsibility. Although the 10 items most closely align with the student learning outcomes, the composite factors that include those 10 items provide a greater understanding of the campus climate related to the learning outcomes. Both the individual items and the climate factors provide information to strengthen learning and development for ethical and moral reasoning on campus.

Personal and Social Responsibility Inventory Sample Survey Items to Track for QEP						
PSRI Item	Related student learning outcome	Related Process Outcome				
My experiences at this campus have increased my ability to learn from diverse perspectives	3	2, 3, 4				
My experiences at this campus have helped me develop a better understanding of academic integrity	1, 2	3, 4				
Faculty at this institution understand the campus academic policies	2	4				
Faculty reinforce the campus academic policies	2, 3	3, 4				
Helping students recognize the importance of taking seriously the perspectives of others is a major focus of this campus	3	3,4				
Faculty at this institution help students think through new and challenging ideas or perspectives	1, 2, 3	3,4				
This campus has high expectations for students in terms of their ability to take seriously the perspectives of others, especially those with whom they disagree	1, 2, 3	3, 4				
Helping students to develop their ethical and moral reasoning is a major focus of this campus	1, 2, 3	2, 3, 4				
This campus helps students to develop their ethical and moral reasoning, including the ability to express and act upon personal values responsibly	1, 2, 3	2, 3, 4				
This campus provides opportunities for students to develop their ethical and moral reasoning in their academic work	1, 2, 3	3, 4				

Note: This assessment did not track process outcomes (4).

Table 14: Academic Integrity

Please rate your level of agreement with the following items:*

	Valid Responses	Strongly Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Strongly Agree
My experiences at this campus have helped me develop a better understanding of academic integrity**	256	13	7	35	59	142
	100%	5%	3%	14%	23%	56%
Faculty at this institution understand the campus academic honesty policies**	254	9	2	27	40	176
	100%	4%	1%	11%	16%	69%
Faculty at this institution support the campus academic honesty policies	251	10	0	30	36	175
	100%	4%	*	12%	14%	70%

Note: Percentages may not equal 100% because of rounding. Items with * instead of a percentage rounded to 0%.

Scale: (1) Strongly disagree to (5) Strongly agree.

** The St. Philip's team selected this as one of 10 items to track for the QEP.

Table 15: Academic Integrity (cont.)

How often do the following occur on this campus?*

	Valid Responses	Almost Never	Not Very Often	Occasionally	Often	Almost Always
Faculty reinforce the campus academic honesty policies**	240	3	7	32	59	139
	100%	1%	3%	13%	25%	58%
Formal course syllabi define academic dishonesty (including such issues as plagiarism, improper citation of Internet sources, buying papers from others, cheating on assignments or tests, etc.)	249 100%	5 2%	5 2%	20 8%	32 13%	187 75%

Note: Percentages may not equal 100% because of rounding. Items with * instead of a percentage rounded to 0%.

Scale: (1) Almost never to (5) Almost always.

Table 16: Perspective Taking

Please rate your level of agreement with the following items:*

	Valid Responses	Strongly Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Strongly Agree
Helping students recognize the importance of taking seriously the perspectives of others is a major focus of this campus**	254 100%	10 4%	12 5%	33 13%	67 26%	132 52%
This campus helps students understand the connections between appreciating various opinions and perspectives and being a well-informed citizen	256 100%	9 4%	12 5%	38 15%	70 27%	127 50%
It is safe to hold unpopular positions on this campus	233 100%	10 4%	14 6%	62 27%	51 22%	96 41%
Faculty at this institution teach about the importance of considering diverse intellectual viewpoints	251 100%	9 4%	7 3%	48 19%	56 22%	131 52%
Faculty at this institution help students think through new and challenging ideas or perspectives**	255 100%	9 4%	6 2%	36 14%	36 24%	142 56%
Students at this institution are respectful of one another when discussing controversial issues or perspectives	247 100%	8 3%	9 4%	34 14%	64 26%	132 53%
This campus has high expectations for students in terms of their ability to take seriously the perspectives of others, especially those with whom they disagree**	251 100%	10 4%	8 3%	37 15%	57 23%	139 55%

Note: Percentages may not equal 100% because of rounding. Items with * instead of a percentage rounded to 0%.

Scale: (1) Strongly disagree to (5) Strongly agree.

Table 17: Perspective Taking (cont.)

My experiences at this campus have:*

	Valid Responses	Strongly Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Strongly Agree
further developed my respect for perspectives different from my own	260	8	9	49	53	141
	100%	3%	4%	19%	20%	54%
increased my ability to learn from diverse perspectives**	257	7	8	34	59	149
	100%	3%	3%	13%	23%	58%
increased my ability to gather and thoughtfully use evidence to support my ideas	255	7	7	33	57	151
	100%	3%	3%	13%	22%	59%

Note: Percentages may not equal 100% because of rounding. Items with * instead of a percentage rounded to 0%.

Scale: (1) Strongly disagree to (5) Strongly agree.

Table 18: Ethical and Moral Reasoning

Please rate your level of agreement with the following items:*

	Valid Responses	Strongly Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Strongly Agree
Helping students to develop their ethical and moral reasoning is a major focus of this campus**	254 100%	10 4%	12 5%	38 15%	57 22%	137 54%
This campus helps students to develop their ethical and moral reasoning, including the ability to express and act upon personal values responsibly**	251 100%	9 4%	8 3%	38 15%	65 26%	131 52%
The importance of developing a personal sense of ethical and moral reasoning is frequently communicated to students	250 100%	11 4%	11 4%	41 16%	54 22%	133 53%
My experiences at this campus have further developed my ability to consider the moral/ethical dimensions of issues	254 100%	10 4%	14 6%	46 18%	54 21%	130 51%
My experiences at this campus have further developed my ability to consider the moral/ethical consequences of my own actions	254 100%	9 4%	11 4%	36 14%	58 23%	140 55%
This campus provides opportunities for students to develop their ethical and moral reasoning in their academic work**	253 100%	7 3%	7 3%	38 15%	63 25%	138 55%
This campus provides opportunities for students to develop their ethical and moral reasoning in their personal life	253 100%	8 3%	9 4%	46 18%	55 22%	135 53%

Note: Percentages may not equal 100% because of rounding. Items with * instead of a percentage rounded to 0%.

Scale: (1) Strongly disagree to (5) Strongly agree.

Table 19: PSRI Factor and Item Means and Standard Deviations*

	М	SD
Faculty Roles in Academic Integrity	4.45	0.74
Faculty at this institution understand the campus academic honesty policies	4.46	0.97
Faculty at this institution support the campus academic honesty policies	4.46	0.99
Faculty reinforce the campus academic honesty policies	4.35	0.91
Formal course syllabi define academic dishonesty (including such issues as plagiarism, improper citation of Internet sources, buying papers from others, cheating on assignments or tests, etc.)	4.57	0.88
General Climate for Perspective Taking	4.16	0.91
Helping students recognize the importance of taking seriously the perspectives of others is a major focus of this campus	4.18	1.08
This campus helps students understand the connections between appreciating various opinions and perspectives and being a well-informed citizen	4.15	1.06
It is safe to hold unpopular positions on this campus	3.90	1.14
Faculty at this institution teach about the importance of considering diverse intellectual viewpoints	4.17	1.06
Faculty at this institution help students think through new and challenging ideas or perspectives	4.26	1.02
Students at this institution are respectful of one another when discussing controversial issues or perspectives	4.23	1.03
This campus has high expectations for students in terms of their ability to take seriously the perspectives of others, especially those with whom they disagree	4.22	1.07
General Climate for Ethical and Moral Reasoning	4.19	0.96
Helping students to develop their ethical and moral reasoning is a major focus of this campus	4.18	1.10
This campus helps students to develop their ethical and moral reasoning, including the ability to express and act upon personal values responsibly	4.20	1.04
The importance of developing a personal sense of ethical and moral reasoning is frequently communicated to students	4.15	1.12
This campus provides opportunities for students to develop their ethical and moral reasoning in their academic work	4.26	1.00
This campus provides opportunities for students to develop their ethical and moral reasoning in their personal life	4.19	1.06

*Response ranged from 1 = Strongly disagree/Almost never to 5 = Strongly agree/Almost always

Overall, the PSRI factor scores indicate that students generally selected "Agree" or "Strongly agree" in response to the climate survey items suggesting positive climates. The standard deviations are also relatively consistent, indicating that student scores did not vary much below the "Neutral" response option.

Conclusion

This report detailed the results from two administrations of the moral and ethical development case study. In addition, the pre-test included the Moral Foundations Questionnaire and the post-test included items and factors from the Personal and Social Responsibility Inventory. Results from the case study indicated that approximately 83% of students in each assessment decided that cheating should be reported. Moreover, nearly two-thirds of students selected a high-level of commitment to their earlier decisions. Results also indicated that selection of all three levels of reasoning increased slightly from pre- to posttest and that mid-level reasoning increased slightly. The level of consistency in prioritization of their reasons simultaneously. However, we found no statistically significant mean differences between the two assessments.

Students were relatively consistent in self-identifying their own moral foundations as compared to their scores on the overall questionnaire. The care/harm and fairness/cheating scales both received the highest average rating. Moreover, most students indicated positive perceptions of the campus climates for perspective taking, academic integrity, and ethical and moral reasoning.