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Cover Page Footnote

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Academic Integrity: Preventing Cheating with the Implementation of an Honor Code

People cheat to get ahead academically, financially, and professionally (Callahan, 2004). Therefore, it is not surprising that this serious, pervasive problem is also a current concern to educators in schools. The issue of academic dishonesty among Catholic school students is a reflection of the widespread, societal problem of cheating. Educators in Catholic schools are called upon by the Church to educate students not only academically, but morally and ethically as well (Congregation for Catholic Education [CCE], 1988). A key aspect of a Catholic school education is the integration of religious truths and values with the realities of everyday life (National Conference of Catholic Bishops [NCCB], 1973). While the influence Catholic school teachers have on the formation of their students' values and social mores is an essential element for building community in Catholic schools (CCE, 1998), academic honesty is a growing concern for all educators because it is important to prepare students for college and their future adult life experiences through the ownership of their own ideas and actions.

With the faculty's increased concern about the incidences of students cheating on assignments, academic integrity had become an area of interest at Tampa Catholic High School. Located in Tampa, Florida, this ninth through twelfth grade coeducational, college preparatory high school is owned and operated by the Diocese of St. Petersburg. The current population of Tampa Catholic High School consists of 702 students and 49 teachers, and the school is dedicated to serving a diverse, multicultural group of lower and upper middle class families in Hillsborough and Pasco counties (Tampa Catholic High School, 2009).

Because college admissions are currently so competitive, many students may feel the need to obtain high grade point averages in order to be accepted into the schools of their choice, while retentive learning of their class material becomes a secondary, short-term goal. Students are also finding that the use of the Internet and sophisticated electronic devices make cheating and plagiarism easier to accomplish. The overwhelming majority of students attending Tampa Catholic High School have their own cell phones and personal computers. A recent article published in *USA Today* (Toppo, 2009) reported survey results indicating that one-fourth of teenagers used their cell phones in class, despite school policies banning their usage during school hours. Additionally, 26% of teens stored information on their cell phones to view during the a test, 25% of teens used their cell phone to send text messages to friends about answers during a test, 20% of teens searched the Internet for answers during a test, and 17% of teens took a photo of the test to send to friends. Only about half the teens surveyed believed these actions were dishonest, suggesting current attitudes among teenagers about cheating are influenced by the types of methods utilized. The survey also suggested teenagers have developed different attitudes and standards for cheating and plagiarism regarding information that is handwritten compared to information that is stored or found on electronic devices, such as cell phones and computers (Toppo). As these survey results suggest, students are finding electronic devices hold

an easy solution to obtaining good grades. These devices offer immediate gratification to the academic problem at hand, and are becoming harder for teachers to detect, lending themselves to an immoral attraction for the students, as well.

Academic dishonesty among students is a widespread problem in schools today. Improvement in ethical standards is possible, however. The trend of teachers reporting increasing incidences of academic dishonesty at Tampa Catholic High School demonstrated that traditional methods used to deter students from cheating and plagiarism were not effective. The established penalty for a student who was caught cheating was that the student received a grade of zero on the assignment, and that a referral from the Dean's Office was placed in the student's disciplinary file. However, this mode of punishment was not a deterrent. The increasing incidences of academic dishonesty at Tampa Catholic High School also indicated that there was a need to educate the students as to what actually constitutes cheating and plagiarism, and to discuss alternatives as a means of prevention.

Academic dishonesty among students is a widespread problem in schools today. Improvement in ethical standards is possible, however.

Perceiving there was a problem with academic dishonesty at Tampa Catholic High School, a group of concerned faculty members met to discuss the issue during the 2008-2009 academic year. An Honor Code Committee was formed which consisted of the Dean of Students, the Assistant Dean of Students, five teachers from the Math Department, a teacher from the English department, a teacher from the Social Studies Department, and a counselor from the Guidance Department. During a series of meetings held from February through May 2009, a decision was made to address the problem and implement an honor code in order to see if it would decrease academic dishonesty among students.

The committee decided on two specific practices as key elements of the new honor code. The first required teachers to educate students in each of their classes at the beginning of the school year as to what was considered academically dishonest work on an assignment. The second element required students to write a short statement of affirmation on each assignment stating that the work they were submitting was solely their own. The written statement agreed upon was "On my honor, I have neither given nor received any unauthorized aid on this assignment. Veritas."

This statement, referred to by the Tampa Catholic community as the "Veritas Statement," was to be posted in every classroom in order that students would remember to include it on all their submitted work. Veritas means "truth" in Latin, and is also the first part of the school's motto, "Veritas, Caritas." Therefore, the Honor Code Committee thought this was a fitting moniker. The committee also had magnets printed for each student in the school, and these magnets were given to the students at the beginning of the school year. The magnets, imprinted with the school crest and the school motto, "Veritas, Caritas," also contained a quote by William Shakespeare, "Honesty is the best policy. If I lose my honor, I lose myself."

Ultimately, students must understand that their education is the mastery of information through learning and critical thinking, not the amassing of high percentages or graduating with a high grade point average. For Tampa Catholic students to better understand academic integrity and the moral consequences involved with cheating and plagiarism, action was essential. Herr and Anderson (2005) found schools are best served by educators working in collaborative communities that seek organizational change through engaging the entire school community in a meaningful learning experience. As a step toward addressing the issue of academic dishonesty, Tampa Catholic High School implemented an honor code during the 2009-2010 school year. At the first faculty meeting of the school year, the faculty and staff were introduced to the implementation of the new honor code. During this meeting, members of the Honor Code Committee outlined how the school would implement the new policies regarding student academic dishonesty. The Veritas Statement was also presented to the faculty at this meeting. The following week, when the students returned to campus for their grade-level orientation meetings, two Honor Code Committee faculty members and two student government leaders spoke to the students at each of the four meetings of the freshman, sophomore, junior and senior classes about the honor code that was being implemented this school year. The honor code policies and the Veritas Statement were introduced to the students at these meetings. The results of this action research will be relevant to all stakeholders in the Tampa Catholic High School community who are interested in determining ways to deter academic dishonesty, such as cheating and plagiarism, among students.

Purpose Statement

The purpose of this action research project was to determine if implementing an honor code diminished academic dishonesty at Tampa Catholic High School.

Research Questions

The major research questions considered in this action research project include:

- How did the students and the faculty react to the introduction of an honor code at Tampa Catholic High School?
- Did the introduction of an honor code deter or lower incidences of academic dishonesty at Tampa Catholic High School over the past two years as measured by trends in student disciplinary referrals to the Dean's Office?

Literature Review

Since the purpose of this action research project was to determine if implementing an honor code diminished academic dishonesty at Tampa Catholic High School, I reviewed the available literature on topics most germane to this project, specifically, academic integrity and school honor codes.

Academic integrity

Academic dishonesty, or cheating, can be defined numerous ways. Broussard and Golson (2000) defined it as including, “but is not limited to, cheating, copying homework, sharing information from a test, and forging a signature” (p. 29). The online *Encyclopedia of Educational Psychology* (2008) used a broader definition: “the use of unauthorized or unacceptable means in any academic work” (p. 4). Cheating among students is not a recent problem in schools. Academic dishonesty has always been a topic of concern for educators. For example, the Field Museum in Chicago has on display an early example of a “cheat sheet.” This piece of silk contains 117 rows of notes to a public exam administered in China in the seventeenth century (Noah & Eckstein, 2001).

Much of the research on academic dishonesty shows it to be a pervasive and increasing problem on high school and college campuses across the United States (McCabe, 1999). A profile of the typical cheater shows no pattern; every student is just as likely to cheat as the next. However, at the undergraduate level, researchers have found that younger, unmarried students were more likely to cheat, which has allowed some researchers to speculate that immaturity and lack of commitment might explain this correlation. It has also been found that academically high-achieving students cheat with the same frequency as do academically low-achieving students (Encyclopedia of Educational Psychology, 2008).

Students have given a myriad of reasons to justify their cheating. Studies have shown students generally give the same excuses for their dishonesty: grade pressure, poor teaching, lack of time, and lack of interest (Encyclopedia of Educational Psychology, 2008; Whitley & Keith-Spiegel, 2002). Psychologists have examined and studied the relationship between moral development and moral action and the relationship these factors have to academic dishonesty. They found that students have generally adopted the principles of Kohlberg’s stages of moral development, with students functioning at the stages of lower and higher moral reasoning. In this situation, the students at the higher stages of moral reasoning were associated with lower levels of cheating (Anderman & Murdock, 2007). The research also suggested that students are more likely to cheat when they are not academically prepared, when they are extrinsically motivated by rewards for good grades, and when they lack self-confidence in their abilities.

Students may cheat for developmental reasons because they do not want to learn, use, or expand upon effective cognitive learning strategies necessary for successful learning (Anderman & Murdock, 2007). Development of these learning strategies takes time, and lack of time is an excuse students give to justify their cheating. Research has also found that cheating occurs less in younger students than in older students (Miller, Murdock, Anderman, & Poindexter, 2007). The developmental differences between the cognitive abilities of the younger students in comparison to the older students may explain why cheating may occur more among high school and college students than with students in middle and elementary schools. Since the higher learning institutions may be more focused on extrinsic factors, such as grades and academic abilities, than are the middle and elementary schools, older students might be more likely to cheat to accomplish academic goals (Anderman & Murdock).

Students may cheat for motivational reasons, such as to obtain good grades or to maintain a positive image of themselves to their family and their friends (Anderman & Murdock, 2007). Personal interest in a subject can also increase or decrease academic dishonesty among students. Anderman and Murdock found that the more interested students were about a topic, the less likely they were to cheat since their personal interest led to increased motivation and background knowledge concerning the subject matter. On the other hand, Anderman and Murdock also found that the less interested students were about a topic, the more likely they were to cheat. Because their lack of personal interest in the subject led to decreased academic motivation, these students did not understand the course material, nor did they want to learn it, and thus, they resorted to cheating to achieve good grades.

In an effort to help teachers prevent cheating, Cizek (1999) has outlined several effective classroom test administration strategies which include: giving tests to smaller groups of students, especially if classes are large; seating students apart from each other during tests to minimize opportunities to cheat; giving clear and specific directions on all tests and class assignments; being clear about the consequences of cheating; and proctoring tests more effectively. Effective proctoring is achieved by teachers being attentive during the testing, being observant of student test-taking behaviors, and remaining in the room during the testing.

In addition to effective proctoring strategies, Cizek (1999) also suggested several other individual prevention strategies that teachers can easily implement in their classrooms to reduce incidences of academic dishonesty. The first strategy is to design good tests. Tests that students perceive to be too trivial or excessively difficult will encourage cheating. Teachers should design well-constructed tests that fairly, accurately, and efficiently measure their students' knowledge of the subject matter. Teachers should avoid giving students test questions that are ambiguous or deceptive in nature. When students perceive tests to be fair, they are less likely to cheat. Another suggested strategy is for teachers to vary the testing format. Multiple-choice, matching, and true-false test formats are more susceptible to cheating than essay or short answer formats because the former type questions require single answer responses, and the latter require more original responses. Teachers may also consider using non-traditional testing methods, such as interviews, oral examinations, and laboratory practical examinations, all of which require the student to demonstrate his/her knowledge or skill level concerning the subject matter.

Teachers should avoid putting students in situations that encourage cheating, such as self-graded papers and take-home tests, and should maintain test security by carefully preparing and storing test materials (Cizek, 1999). Ideally, new versions of the test should be prepared for each testing instance. Copies of test materials and answer keys should not be easily accessible to students on desks, on computers, or in wastebaskets (Cizek). To avoid cheating, teachers should do whatever is possible to control the testing situation. Teachers can ask students to place all nonessential test-taking materials, such as book bags, electronic devices, hats, and jackets, in the front of the room during a testing period (Cizek). Seating students in alternate rows with different versions of the test can reduce cheating (Cizek). Another effective strategy to reduce cheating is for teachers to get to know their students on a personal level. When teachers make efforts to be flexible with school work and to understand the academic pressures their students face, incidences of cheating can be reduced. This strategy has an added side benefit as well, in that it increases rapport between teachers and students, and research has shown that students are less likely to cheat in the

classes of teachers they are fond of and they feel personally care about them (Anderman & Murdock, 2007).

... the most effective strategy to prevent cheating is simply for teachers to define, discuss, and encourage academic integrity with their students

However, Cizek (1999) stated the most effective strategy to prevent cheating is simply for teachers to define, discuss, and encourage academic integrity with their students. Students should be clearly informed, both verbally and in writing, by their teachers as to exactly what actions are considered to be cheating and plagiarism, and they should be made aware that their teachers will be on the lookout for academic dishonesty. Each course's expectation sheet or syllabus should contain the school's policy regarding academic integrity. In other words, administrators, teachers and students

need to work on building community in their schools, something that Catholic school educators are familiar with and capable of doing very well.

School honor codes

A 1993 study conducted by McCabe and Trevino surveyed 6,096 undergraduate students at 31 colleges and universities, with and without honor codes, across the United States. In order to be classified as having an honor code, the colleges and universities in the study had to meet at least two of the following criteria, with most schools meeting at least three of the criteria: unproctored examinations, an honor pledge, a requirement for student reporting of honor code violations, and the existence of a student court or peer judiciary board (Whitley & Keith-Spiegel, 2002). Survey respondents were asked to specify if they had engaged in any of twelve behaviors considered to be academically dishonest. The behavior categories were: 1) using crib notes on a test; 2) copying from another student during a test; 3) using unfair methods to learn what was on a test before it was given; 4) copying from another student during a test without his or her knowledge; 5) helping someone cheat on a test; 6) cheating on a test in any other way; 7) copying material and turning it in as your own work; 8) fabricating or falsifying a bibliography; 9) turning in work done by someone else; 10) receiving substantial, unpermitted help on an assignment; 11) collaborating on an assignment when the instructor asked for individual work; and 12) copying a few sentences of material from a published source without footnoting the source (McCabe & Trevino, 1993). McCabe and Trevino's data found that although almost 75% of the respondent students at all 31 colleges and universities reported participating in at least one of the twelve academically dishonest behaviors, at the institutions that had an established honor code, cheating among students had decreased by more than 50%.

Since McCabe and Trevino's (1993) research supports the contention that honor codes can reduce cheating, one may question why more schools and universities do not have these policies in place. Callahan (2004) believes that schools contribute to the culture of societal dishonesty by creating "a permissive environment around cheating by failing to institute tough honors [*sic*] codes" (p. 231). The problem may be that many school leaders know that there is a cheating problem at their school, but they are afraid to acknowledge it for fear of attracting negative attention or showing their school in an unfavorable light (Callahan; Lathrop & Foss, 2000).

Another problem stated by Callahan involves the failure of sustained efforts by a school's administration and faculty to consistently enforce academic honesty policies and honor codes. If the entire school's administration and faculty do not support and participate in the school's efforts to reduce cheating, the process becomes counterproductive and may actually result in more cheating (Lathrop & Foss); therefore, it is simply easier for these educators to believe that cheating is not a problem in their school.

Research showed several reasons why some schools have success with academic honor codes. Schools that want their students to exhibit academically honest behaviors need to emphasize and model that these are the standard behaviors of an ethical person. Schools must create and foster a culture of academic integrity that supports the honor code and discourages dishonesty (Engler, Landau, & Epstein, 2008). The research completed by McCabe and Trevino (1993) found five significant hypotheses in schools that had an honor code. The first was that students were less likely to cheat in schools with honor codes for fear of actually being caught. The second significant hypothesis related the existence of an honor code with the students' understanding and acceptance of the school's policies regarding academic integrity. The third significant hypothesis was that cheating was inversely related to the possibility of being reported by a peer. The fourth hypothesis was in schools with honor codes, the perceived severity of the penalty for cheating actually had the effect of reducing the amount of cheating. Finally, McCabe and Trevino hypothesized that an honor code also affected the students' perceptions regarding the honest and ethical behaviors of their peers.

There will always be students who cheat; honor codes will never entirely put a stop to it. However, research has shown that students "cheat less at schools with an honor code and a peer culture that condemns dishonesty" (McCabe & Trevino, 2002, p. 37). The following two elements are vital to the success of an honor code: the school must be clear in its communication and expectations to its students that academic integrity is a critical school priority, and students must participate in the development and implementation of the honor code (McCabe & Trevino). Therefore, having students, especially those with leadership roles, help with the implementation of an honor code plays a key role in its eventual success. The research stressed that students must be involved in discussions about academic integrity and in efforts to change and nurture a culture of academic honesty within a school. The eventual success of the honor code depends on getting students to be accountable for the culture of academic integrity within their school, not only for their own actions but for that of their peers, as well. Although this does not necessarily mean that students must report other students who cheat, students should be expected to help create an atmosphere within the school where cheating is socially unacceptable (McCabe & Trevino).

In summary, the Catholic Church calls upon us not only to educate students academically, but morally and ethically as well (CCE, 1988). Catholic schools must be concerned with the influence they have on the formation of our students' values and social mores, since this is an essential element in building community (CCE). Therefore, by preventing cheating with effective instructional strategies, it would stand to reason that nurturing a culture of academic integrity in Catholic schools would be a logical extension of the concern for students, and it should be one of the responsibilities of Catholic school educators to ensure that effective, fully enforced and community supported honor codes or academic integrity policies are in place.

Method

The purpose of this action research project was to determine if implementing an honor code diminished academic dishonesty at Tampa Catholic High School. Original survey instruments were used to measure participants' reactions to the introduction of an honor code at Tampa Catholic High School. Survey data was collected before and after the first semester that the honor code was implemented. In addition to this data collection of the participants' perceptions, data analysis of school discipline incidents from the 2008-2009 and 2009-2010 school years was also used to establish if the introduction of the honor code had a measurable, diminishing effect on the number of students caught cheating.

Participants

The August 2009 survey participants ($N = 137$) were 121 students and 16 teachers. All participants were selected from a convenience sample of students and teachers who were able to complete the quantitative survey instrument. Student participants were in their sophomore ($n = 39$), junior ($n = 39$), or senior ($n = 43$) year of high school. On average, faculty participants had 14 years of teaching experience ranging from two years to over thirty years.

The January 2010 survey participants ($N = 161$) were 138 students and 23 teachers. All participants were selected from a convenience sample of students and teachers who were able to complete the quantitative survey instrument. Student participants were in their sophomore ($n = 46$), junior ($n = 45$), or senior ($n = 47$) year of high school. On average, faculty participants had 14.5 years of teaching experience ranging from one year to forty years.

Instruments and Materials

Survey instrument

Original survey instruments were used to assess student and teacher perceptions of incidences of academic dishonesty at Tampa Catholic High School. Two different, original survey instruments were used: one for the students and one for the teachers. All student and faculty participants completed one voluntary, anonymous survey in August 2009 and a second survey in January 2010. Both surveys included the same six survey questions, which used the interval scales of measurement, *never*, *sometimes*, *often*, and *always*, with theoretically equal scales of measurement similar to the popular Likert scale that uses measurements of *strongly disagree* to *strongly agree* (Creswell, 2008).

Student survey

Student participants were selected through a convenience sampling of homerooms to complete the quantitative survey instrument. This survey was administered twice to the same homerooms of students, once in August 2009, and again in January 2010. In August 2009, from the total student population of 702 students at Tampa Catholic High School, six homeroom classes were

sampled and survey responses from 121 voluntary student participants, approximately 17% of the student population, were collected. In January 2010, from the total student population of 701 students at Tampa Catholic High School, the same six homeroom classes were sampled and survey responses from 138 voluntary student participants, approximately 20% of the student population, were collected. The original survey instrument, entitled “Student Survey on Academic Honesty,” contained six questions asking students to assess occurrences of their own academically dishonest behaviors at Tampa Catholic High School (see Appendix A). Voluntary participants were asked to respond anonymously in writing to statements such as, “I have copied from another student during a quiz, test, or exam,” “I have used an unauthorized electronic device for assistance during a quiz, test, or exam,” and “I have submitted as my own, an assignment that was either entirely or partially copied from the Internet or another source, without using proper citation.” This survey used *never*, *sometimes*, *often*, and *always* as response options to these questions. Through a comparison of the survey data collected, students’ reactions to the introduction of the honor code were assessed to see whether the code had diminished academic dishonesty at Tampa Catholic High School.

Faculty survey

Faculty participants voluntarily completed the quantitative survey instrument. This survey was administered twice to the faculty, once in August 2009, and again in January 2010. In August 2009, faculty participants were selected through random sampling to complete the quantitative survey instrument. From a total faculty population of 49 teachers, the faculty surveys were distributed in the school mailboxes of 25 randomly selected teachers. Survey responses were received from 16 voluntary faculty participants, which is approximately 33% of the faculty population. In January 2010, because of the prior low response rate, all 49 faculty members were asked to complete the quantitative survey instrument. The faculty surveys were distributed in the school mailboxes of all 49 teachers. Survey responses were received from 23 voluntary faculty participants, which is approximately 47% of the faculty population. This original survey instrument, entitled “Faculty Survey on Academic Honesty,” contained questions asking teachers to assess occurrences of their own students’ academically dishonest behaviors at Tampa Catholic High School (see Appendix B). Voluntary participants were asked to respond anonymously in writing to statements such as, “I have experienced students copying from another student during a quiz, test, or exam,” “I have experienced students using an unauthorized electronic device for assistance during a quiz, test, or exam,” and “I have experienced students submitting as their own, an assignment that was either entirely or partially copied from the Internet or another source, without using proper citation.” This survey used *never*, *sometimes*, *often*, and *always* as theoretically equal interval scales of measurement for responses to these questions. Through a comparison of the survey data collected, the faculty’s reaction to the introduction of the honor code was assessed as to whether the new code had diminished academic dishonesty at Tampa Catholic High School.

School discipline data

In addition to the survey data, school discipline data pertaining to student disciplinary referrals to the Dean’s Office during the 2008-2009 and 2009-2010 school years was collected and analyzed for incidences of academic dishonesty. This data was used to establish if the introduction of the

honor code had a diminishing effect on the number of students caught cheating, as measured by trends in student disciplinary referrals to the Dean's Office over the past two years. Data from previous years was unavailable.

Design and Procedure

Researcher positionality

During the initiation of my action research project, I was unsure how my role as both the action researcher and as the Assistant Dean of Students would affect the implementation of this action research project. I wondered if I should consider myself an insider or an outsider during the research of the problem at my school, and if my position as the action researcher and also as the Assistant Dean of Students in any way influenced how students and faculty participated or behaved in this study. This dilemma demonstrated the positionality that action researchers commonly find themselves facing during an on-site study (Herr & Anderson, 2005). To assist with the positionality aspect, I served on an action research collaborative team as both an inside and an outside researcher to aid in the process of the gathering of data and the completion of my own action research project, and to also aid in the completion of the action research projects of my fellow cohort members. This action research problem-solving and feedback group consisted of me, four other members of the seventh cohort of the Remick Leadership Program in the Alliance for Catholic Education at the University of Notre Dame, and Dr. James Frabutt of the Remick Leadership Program at the University of Notre Dame. The uniqueness of our positionality allowed us to be inside and outside researchers at the same time during the varying aspects of our studies.

Implementation procedures

At the first faculty meeting of the school year, I participated in the introduction of the implementation of the new honor code to the faculty and staff of Tampa Catholic High School. During this meeting, I, along with the other members of the Honor Code Committee, outlined the initial phase of how the new policies regarding student academic dishonesty would be implemented. The Veritas Statement was presented to the faculty as part of a PowerPoint presentation on academic honesty. This same PowerPoint presentation was to be shown to the students at their grade-level orientation meetings during the first day of school. I stressed to the faculty that, if we were to succeed at creating a culture of academic integrity within our school, it was critical that all teachers implement and support the academic honesty policy, and also understand the importance of having the students write the Veritas Statement on all graded assignments. I cited research that I had included in my Action Research Literature Review to the faculty to emphasize the importance of acting together as a community on this project since as educators in a Catholic school, we are called upon by the Church to educate students not only academically, but morally and ethically, as well (CCE, 1988). I discussed with the faculty the research of McCabe and Trevino (1993), which found at institutions that had an established honor code, cheating among students had decreased by more than 50%. I mentioned to the faculty another problem stated by Callahan (2004) that involved the failure of sustained efforts of a school's administration and faculty to consistently enforce academic honesty policies and honor codes. If the entire school's administration and faculty do not support and participate in

the school's efforts to reduce cheating, the process becomes counterproductive and may actually result in more cheating (Lathrop & Foss, 2000). I made a Word document sign that contained the Veritas Statement and emailed this sign to all the faculty members so that each teacher could print and post the sign in his or her classroom. In this way, I could be sure that all the teachers had a copy of the Veritas Statement to use in their classrooms.

The following week when the students returned to campus for their grade-level orientations, I, along with another Honor Code Committee faculty member and two student government leaders, spoke to the students at each of the four meetings of the freshman, sophomore, junior and senior classes about the honor code that was being implemented starting this school year. The student leaders stressed how the honor code will reflect the importance of each student at the school to be heard as an individual, and will respect the effort each student puts into his or her own assignments. The students also stressed how the honor code will allow all students to take pride in their own work. Finally, the students were introduced to the honor code policies and the Veritas Statement, and shown the PowerPoint presentation on academic honesty that was viewed by the faculty the previous week.

On the first day of class, with my own three Chemistry Honors classes, I stressed the importance of the new honor code and the Veritas Statement. I posted the sign that I had made containing the Veritas Statement in several places around my classroom and notified my students that we would be including this statement on all graded assignments. Shortly after school began, several teachers and many students expressed concern that the Veritas Statement was too long to write on every graded assignment. After much discussion, the Honor Code Committee decided to change the Veritas Statement to a new, shorter version that essentially had the same message, but was easier and quicker for students to write on their assignments: "On my honor, this is my work. Veritas." This new Veritas Statement was actually suggested to one of the Honor Code Committee members by a student.

Administration of measures

The student surveys on perceptions of academic honesty were administered in six randomly selected homerooms on the mornings of Wednesday, August 26, 2009, and Wednesday, January 20, 2010. The homeroom teachers were given an instruction sheet for administering the student survey on academic honesty (see Appendix C). In order to increase the validity of the answers I received from the surveyed students, the surveys were administered at the same time in order to avoid discussion and conversation about the questions on the survey among students who had already taken the survey with those students who had not yet done so. Upon completion of the survey, the students were instructed to fold the survey in half and hand it to their homeroom teacher, who was instructed to walk around the classroom to collect the completed surveys. Students were not allowed to converse during the administration of the survey. Since this voluntary survey was anonymous and confidential, and since Tampa Catholic High School students routinely complete various surveys in homeroom, parental consent was not required. I observed the administration of the survey by the homeroom teacher in one of the randomly selected homerooms, and all procedures I instructed the teacher to follow were adhered to. I collected the completed surveys from the homeroom teachers immediately following the homeroom period and asked if any irregularities occurred. The teachers indicated no problems in

the administration of the surveys to their homeroom students. The faculty survey instrument was distributed in the teachers' school mailbox on the mornings of Wednesday, August 26, 2009, and Wednesday, January 20, 2010. Faculty participants were asked to place their completed surveys in my school mailbox. The return of the voluntary survey instrument by the student or the faculty member served as consent to participate in the study.

Preparation of data for analysis

Student and faculty survey results were entered into an Excel spreadsheet and a statistical summary of the data was run to identify relationships of central tendency. Descriptive statistics were used to show patterns through the analysis of this data. A coding scheme was used to organize the survey responses and to convert the worded responses into numbered responses. These responses could then be easily analyzed on a spreadsheet to determine relationships among the data (Holter & Frabutt, 2009). The conversion format used was *Never* = 1, *Sometimes* = 2, *Often* = 3, *Always* = 4. Once entered, the data was checked for entry errors of values outside the accepted range of 1, 2, 3, and 4. A full descriptive analysis was run on both the August 2009 pre-survey and January 2010 post-survey data to check for data entry errors, outliers, or for any other anomalies.

The survey data was reconfigured into adjacent columns for comparison with *t*-tests. Individual *t*-tests were run on both the August 2009 pre-survey and January 2010 post-survey items to compare the two groups of data and to determine if statistical significance could be interpreted from the collected data. Data analyses of the student and faculty responses were compared to measure perceived occurrences of academic dishonesty and to assess if there was a significant difference in perceived occurrences of academic dishonesty at Tampa Catholic High School.

Student disciplinary data

In addition to this data collection of the participants' perceptions, descriptive data analysis of school discipline incidences for the past two years was also used to establish if the introduction of the honor code had a measurable, diminishing effect on the number of students caught cheating. Student disciplinary data is maintained by the Dean's Office of Tampa Catholic High School. Reported incidences of academic dishonesty by a student are recorded as a Student Discipline Referral. This information is stored in hard-copy form in the student disciplinary files of the Dean's Office and electronically on Power School, a browser-based, student information and school management system used by the Tampa Catholic High School. As the Assistant Dean of Students at Tampa Catholic High School, I have full access to all student discipline records.

Findings

The purpose of this action research project was to determine if implementing an honor code diminished academic dishonesty at Tampa Catholic High School. The major research questions considered in this project sought to determine how the students and faculty reacted to the introduction of an honor code, and whether the honor code had the desired effect of deterring and lowering incidences of academic dishonesty over the past two years as measured by trends in student disciplinary referrals to the Dean's Office.

Original, quantitative survey instruments were used in order to measure participants' responses to the introduction of an honor code at Tampa Catholic High School and to assess, through a longitudinal comparison of the data collected, if the honor code did diminish academic dishonesty. Descriptive statistics and *t*-tests were used to analyze the quantitative survey data. The findings were then summarized in tables (see Tables 1 – 6) which listed the mean, standard deviation, response counts, and *t*-test statistics for each item. In addition, data analysis of school discipline academic dishonesty incidents from the 2008-2009 and 2009-2010 school years was also conducted to determine whether the introduction of the honor code had a measurable, diminishing effect on the number of students caught cheating.

Survey Results

Original survey instruments were administered in August 2009 and in January 2010 to measure student and faculty perceptions of incidences of academic dishonesty and to gauge participants' reactions to the introduction of an honor code at Tampa Catholic High School.

Student survey items

Statistical analysis of the data for each of the six student survey items was performed using descriptive statistics and a *t*-test (two-sample assuming equal variances) to assess, by comparison, if the introduction of an honor code did diminish academic dishonesty (see Table 1 and Table 2). Analysis of item number one, copying from another student on a test, showed a slight decline: Time 1 ($M = 1.57$; $SD = 0.67$) versus Time 2 ($M = 1.46$; $SD = 0.70$), $t(257) = 1.34$, $p = 0.18$. Analysis of item number two, using unauthorized prepared materials, declined: Time 1 ($M = 1.40$; $SD = 0.60$) versus Time 2 ($M = 1.28$; $SD = 0.64$), $t(257) = 1.58$, $p = 0.11$. Analysis of item number three, using unauthorized electronic devices, showed a slight decline: Time 1 ($M = 1.35$; $SD = 0.62$) versus Time 2 ($M = 1.32$; $SD = 0.66$), $t(257) = 0.35$, $p = 0.72$. Analysis of item number four, students submitting another student's work, declined: Time 1 ($M = 1.59$; $SD = 0.67$) versus Time 2 ($M = 1.51$; $SD = 0.71$), $t(257) = 0.93$, $p = 0.35$. Analysis of item number five, submitting plagiarized assignments, showed a slight decline: Time 1 ($M = 1.43$; $SD = 0.60$) versus Time 2 ($M = 1.41$; $SD = 0.67$), $t(257) = 0.30$, $p = 0.76$. Finally, analysis of item number six, disclosing test questions/answers, showed a decline: Time 1 ($M = 2.07$; $SD = 0.83$) versus Time 2 ($M = 1.90$; $SD = 0.87$), $t(257) = 1.66$, $p = 0.10$. It is important to note that analysis of the student data indicated that each and every item in all six categories showed some decrease in the mean when comparing Time 1, August 2009 versus Time 2, January 2010. However, analyses of all six items showed that while declines in the item means were evident, the *t*-tests indicated that the students' survey responses for each type of academically dishonest behavior did not differ significantly at Time 1, August 2009 versus Time 2, January 2010.

Table 1

Tampa Catholic High School August 2009 Student Survey Data with Item Means, Standard Deviations, and Response Counts and Percentages

Item	<i>M</i>	<i>SD</i>	<i>N</i>	<i>S</i>	<i>O</i>	<i>A</i>
Copied from another student during a quiz, test, or exam.	1.57	0.67	62 (51%)	51 (42%)	6 (5%)	2 (2%)
Used unauthorized prepared materials during a quiz, test, or exam.	1.40	0.60	78 (65%)	38 (31%)	4 (3%)	1 (0.8%)
Used an unauthorized electronic device for assistance during a quiz, test, or exam.	1.35	0.62	87 (72%)	27 (22%)	6 (5%)	1 (0.8%)
Submitted an assignment that was either entirely or partially written or completed by another.	1.59	0.67	61 (50%)	50 (41%)	9 (7%)	1 (0.8%)
Submitted an assignment that was either entirely or partially copied from the internet or another source, without citation.	1.43	0.60	75 (62%)	41 (34%)	4 (3%)	1 (0.8%)
Gave test/quiz questions or answers to another student who will be taking the same test/quiz at a later time.	2.07	0.83	31 (26%)	58 (48%)	25 (21%)	7 (6%)

Note: N = Never, S = Sometimes, O = Often, A = Always

Table 2

Tampa Catholic High School January 2010 Student Survey Data with Item Means, Standard Deviations, Response Counts and Percentages

Item	<i>M</i>	<i>SD</i>	<i>N</i>	<i>S</i>	<i>O</i>	<i>A</i>
Copied from another student during a quiz, test, or exam.	1.46	0.70	87 (63%)	43 (31%)	4 (3%)	4 (3%)
Used unauthorized prepared materials during a quiz, test, or exam.	1.28	0.64	110 (78%)	22 (16%)	2 (2%)	4 (3%)
Used an unauthorized electronic device for assistance during a quiz, test, or exam.	1.32	0.66	105 (76%)	26 (19%)	3 (2%)	4 (3%)
Submitted an assignment that was either entirely or partially written or completed by another.	1.51	0.71	82 (59%)	45 (33%)	8 (6%)	3 (2%)
Submitted an assignment that was either entirely or partially copied from the internet or another source, without citation.	1.41	0.67	92 (67%)	38 (28%)	5 (4%)	3 (2%)

Gave test/quiz questions or answers to another student who will be taking the same test/quiz at a later time.	1.90	0.87	52 (38%)	55 (40%)	24 (17%)	7 (5%)
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Note: N = Never, S = Sometimes, O = Often, A = Always

Additionally, the students' responses of *never*, *sometimes*, *often*, and *always* were analyzed to determine if the six survey items had increased or decreased after one semester of use of the honor code from August 2009 to January 2010. For the students, in the category of *never*, there was an increase in all six survey response items, stating that they had never participated in the described cheating behaviors during this time period with item number six, disclosing test questions/answers, having the greatest increase of *never* responses. In the categories of *sometimes* and *often*, a decrease was noted in the majority of responses from August 2009 to January 2010. The category of *always* saw an increase in the responses from August 2009 to January 2010. See Table 1 and Table 2 for an itemized numerical comparison of the student data.

Faculty survey items

Statistical analysis of the data for each of the six faculty survey items was performed using descriptive statistics and a *t*-test (two-sample assuming equal variances) to assess, by comparison, if the introduction of an honor code did diminish academic dishonesty (see Table 3 and Table 4). Analysis of item number one showed the faculty reported significantly fewer incidents of students copying from another student on a test at Time 2, January 2010 ($M = 1.30$; $SD = 0.47$) than at Time 1, August 2009 ($M = 2.13$; $SD = 0.34$), $t(37) = 5.96$, $p < 0.001$. Analysis of item number two showed the faculty reported significantly fewer incidents of students using unauthorized prepared materials at Time 2 ($M = 1.26$; $SD = 0.45$) than at Time 1 ($M = 1.94$; $SD = 0.25$), $t(37) = 5.45$, $p < 0.001$. A *t*-test indicated that the faculty's reports of occurrences of students using unauthorized electronic devices, item number three, while declining somewhat, did not differ significantly at Time 2 ($M = 1.17$; $SD = 0.39$) versus Time 1 ($M = 1.31$; $SD = 0.48$), $t(37) = 0.99$, $p = 0.33$. The faculty reported fewer incidents of students submitting another student's work, item number four, at Time 2 ($M = 1.87$; $SD = 0.69$) than at Time 1 ($M = 2.38$; $SD = 0.62$), $t(37) = 2.33$, $p = 0.03$. The faculty reported significantly fewer incidents of students submitting plagiarized assignments, item number five, at Time 2 ($M = 1.61$; $SD = 0.50$) than at Time 1 ($M = 2.34$; $SD = 0.62$), $t(37) = 4.27$, $p < 0.001$. Finally, analysis of item number six showed the faculty reported fewer incidents of students disclosing test questions/answers at Time 2 ($M = 2.04$; $SD = 0.77$) than at Time 1 ($M = 2.81$; $SD = 0.83$), $t(37) = 2.97$, $p < 0.01$. It is important to note that analysis of the faculty data indicated the same trend that was seen in the student data: each and every item in all six categories showed some decrease in the mean when comparing Time 1, August 2009 versus Time 2, January 2010. Furthermore, five of the six faculty survey items also were statistically significant.

Additionally, the faculty's responses of *never*, *sometimes*, *often*, and *always* were analyzed to determine if the six survey items had increased or decreased after one semester of use of the honor code from August 2009 to January 2010. For the faculty, in the category of *never*, there was a major increase in all six survey response items, stating that they had never witnessed students participating in the described cheating behaviors during this time period with item number two, students using unauthorized prepared materials, having the greatest increase of

never responses. The category of *sometimes* showed both increases and decreases in the responses from August 2009 to January 2010. The categories of *often* and *always* both showed no changes and decreases in the responses from August 2009 to January 2010. See Table 3 and Table 4 for an itemized numerical comparison of the faculty data.

Table 3.

Tampa Catholic High School August 2009 Faculty Survey Data with Item Means, Standard Deviations, and Response Counts and Percentages

Item	M	SD	N	S	O	A
Copying from another student during a quiz, test, or exam.	2.13	0.34	0 (0%)	14 (88%)	2 (13%)	0 (0%)
Using unauthorized prepared materials during a quiz, test, or exam.	1.94	0.25	1 (6%)	15 (94%)	0 (0%)	0 (0%)
Using an unauthorized electronic device for assistance during a quiz, test, or exam.	1.31	0.48	11 (69%)	5 (31%)	0 (0%)	0 (0%)
Submitting an assignment that was either entirely or partially written or completed by another.	2.38	0.62	0 (0%)	11 (69%)	4 (25%)	1 (6%)
Submitting an assignment that was either entirely or partially copied from the internet or another source, without citation.	2.34	0.62	1 (6%)	8 (50%)	7 (44%)	0 (0%)
Giving test/quiz questions or answers to another student who will be taking the same test/quiz at a later time.	2.81	0.83	0 (0%)	7 (44%)	5 (31%)	4 (25%)

Note: N = Never, S = Sometimes, O = Often, A = Always.

Table 4.

Tampa Catholic High School January 2010 Faculty Survey Data with Item Means, Standard Deviations, and Response Counts and Percentages

Item	M	SD	N	S	O	A
Copying from another student during a quiz, test, or exam.	1.30	0.47	16 (70%)	7 (30%)	0 (0%)	0 (0%)
Using unauthorized prepared materials during a quiz, test, or exam.	1.26	0.45	17 (74%)	6 (26%)	0 (0%)	0 (0%)
Using an unauthorized electronic device for assistance during a quiz, test, or exam.	1.17	0.39	19 (83%)	4 (17%)	0 (0%)	0 (0%)
Submitting an assignment that was either entirely or partially written or completed by another.	1.87	0.69	7 (30%)	12 (52%)	4 (17%)	0 (0%)

Submitting an assignment that was either entirely or partially copied from the internet or another source, without citation.	1.61	0.50	9 (39%)	14 (61%)	0 (0%)	0 (0%)
Giving test/quiz questions or answers to another student who will be taking the same test/quiz at a later time.	2.04	0.77	5 (22%)	13 (57%)	4 (17%)	1 (4%)

Note: N = Never, S = Sometimes, O = Often, A = Always.

Comparison of student and faculty survey items

A comparison of the statistical analyses of the data for each of the six student survey items versus each of the six faculty survey items indicated that both groups showed a marked drop between the means of all six items from August 2009 and January 2010 (see Table 5 and Table 6). However, occurrences reported in survey item number three, students using unauthorized electronic devices, showed the least change between the means in both the student and faculty responses. Survey item number three was also the only item not to show any change as revealed by the faculty response t -value, $t(37) = 0.99$, $p = 0.33$. The other five faculty survey items showed a statistically significant change, indicating that the faculty believed the use of the honor code had diminished cheating among students in these five areas. All six of the student survey items showed the opposite effect with no statistically significant change, indicating that the students believed the use of the honor code had little to no effect on the amount of cheating among students in these six areas.

Table 5.

Tampa Catholic High School August 2009 and January 2010 Student Survey Data with Item Means, Standard Deviations, and t Statistics

Item	M 08/09	SD 08/09	M 01/10	SD 01/10	df	t -value
Copied from another student during a quiz, test, or exam.	1.57	0.67	1.46	0.70	257	1.34 $p = 0.18$
Used unauthorized prepared materials during a quiz, test, or exam.	1.40	0.60	1.28	0.64	257	1.58 $p = 0.11$
Used an unauthorized electronic device for assistance during a quiz, test, or exam.	1.35	0.62	1.32	0.66	257	0.35 $p = 0.72$
Submitted an assignment that was either entirely or partially written or completed by another.	1.59	0.67	1.51	0.71	257	0.93 $p = 0.35$
Submitted an assignment that was either entirely or partially copied from the internet or another source, without citation.	1.43	0.60	1.41	0.67	257	0.30 $p = 0.76$

Gave test/quiz questions or answers to another student who will be taking the same test/quiz at a later time.	2.07	0.83	1.90	0.87	257	1.66 $p = 0.10$
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Table 6.

Tampa Catholic High School August 2009 and January 2010 Faculty Survey Data with Item Means, Standard Deviations, and t Statistics

Item	<i>M</i> 08/09	<i>SD</i> 08/09	<i>M</i> 01/10	<i>SD</i> 01/10	<i>df</i>	<i>t</i> -value
Copying from another student during a quiz, test, or exam.	2.13	0.34	1.30	0.47	37	5.96 $p < 0.001$
Using unauthorized prepared materials during a quiz, test, or exam.	1.94	0.25	1.26	0.45	37	5.45 $p < 0.001$
Using an unauthorized electronic device for assistance during a quiz, test, or exam.	1.31	0.48	1.17	0.39	37	0.99 $p = 0.33$
Submitting an assignment that was either entirely or partially written or completed by another.	2.38	0.62	1.87	0.69	37	2.33 $p = 0.03$
Submitting an assignment that was either entirely or partially copied from the internet or another source, without citation.	2.34	0.62	1.61	0.50	37	4.27 $p < 0.001$
Giving test/quiz questions or answers to another student who will be taking the same test/quiz at a later time.	2.81	0.83	2.04	0.77	37	2.97 $p = 0.01$

Additionally, the students' and the faculty's responses of *never*, *sometimes*, *often*, and *always* were analyzed to determine if the responses to the six survey items had consistently increased after one semester of use of the honor code from August 2009 to January 2010. A comparison of the two groups showed a consistent increase in all six survey response items for the students and the faculty in the category of *never*, stating that the students had never participated and the faculty had never witnessed students participating in the described cheating behaviors during this period of time. See Table 1 through Table 4 for an itemized numerical comparison of all the survey data.

Disciplinary Trends

Data analysis of school discipline incidents from the 2008-2009 and 2009-2010 school years was used to establish if the introduction of the honor code had a measurable, diminishing effect on the number of students caught cheating. This data was collected and analyzed for incidences of academic dishonesty as measured by trends in student disciplinary referrals to the Dean's Office over the past two years to determine if the honor code had the desired effect of deterring academic dishonesty at Tampa Catholic High School.

Cheating incidences

At the end of the 2008-2009 school year, a list was obtained from Power School, a browser-based, student information and school management system, containing all student discipline log entries for August 2008 through May 2009. From this list, the names of those students disciplined by the Dean's Office for academic dishonesty were obtained. Forty-one students had been disciplined by the Dean's Office for incidences of cheating during this school year. Of this number, sixteen incidences of cheating had occurred from August 2008 through December 2008, and twenty-five incidences of cheating had occurred from January 2009 through May 2009.

At the end of the first semester of the 2009-2010 school year, another list was obtained from Power School containing all student discipline log entries for August 2009 through December 2009. From this list, the names of those students disciplined by the Dean's Office for academic dishonesty were obtained. Ten students had been disciplined by the Dean's Office for incidences of cheating during the first semester of the school year. A comparison of the first semester data between August through December 2008 (16 students) and August through December 2009 (10 students) showed a 38% decrease in the number of students disciplined for academic dishonesty since the introduction of the honor code (see Figure 1).

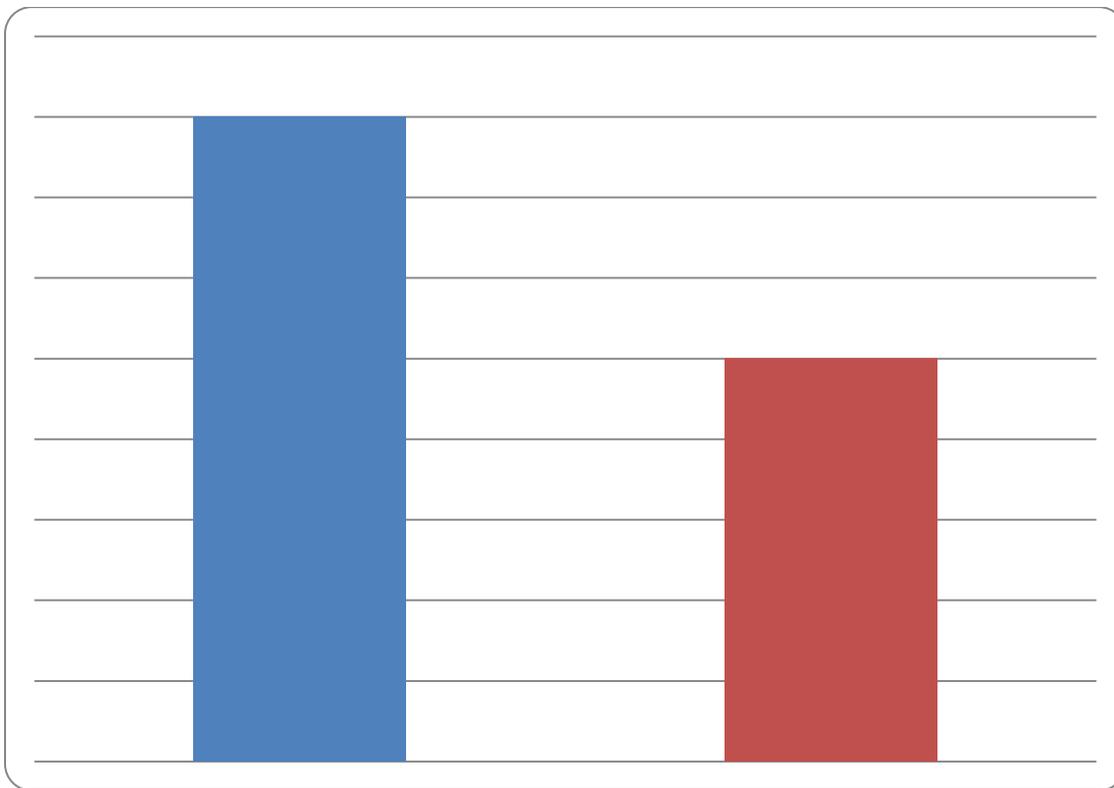


Figure 1. Number of Tampa Catholic High School Students Disciplined during Semester 1 for Academic Dishonesty.

In conclusion, the data from this quantitative action research project revealed important differences in perceptions between students and faculty regarding whether the introduction of an honor code diminished academic dishonesty at Tampa Catholic High School. While the data

analysis of the survey items did not show a statistical significance in the change of academically dishonest student behaviors, as evidenced by the non-significant p values obtained from the student survey results, it has, however, shown that the student and faculty data were trending in the correct direction, with each item in all six categories showing some decrease in the mean when comparing Time 1, August 2009, to Time 2, January 2010. Thus, the student and faculty survey responses indicated that there has been a shift in behaviors towards increased academic honesty, indicating that the implementation of the honor code was successful and well accepted. As evidence, in all six survey items, both groups showed an increase in the survey response category of *never*, stating that the students had never participated and the faculty had never witnessed students participating in the described cheating behaviors during the period of time from August 2009 through January 2010. This was further evident in the first semester alone by the 38% decrease in the number of students disciplined by the Dean's Office for academic dishonesty.

Discussion and Extension

The purpose of this action research project was to determine if implementing an honor code diminished academic dishonesty at Tampa Catholic High School. Original, quantitative survey instruments were used in order to measure participants' reactions to the introduction of an honor code and to assess, through a longitudinal comparison of the data collected, if the honor code did diminish academic dishonesty. Descriptive statistics and comparative t -tests were used to analyze the quantitative survey data. In addition, data analysis of school discipline academic dishonesty incidents over the last two years was conducted to determine whether the introduction of an honor code had a measurable, diminishing effect on the number of students caught cheating.

Major Findings

Statistical analysis of the data for each of the six student and faculty survey items was performed to assess, by comparison, if the introduction of an honor code did diminish academic dishonesty. This data analysis approach was appropriate since McCabe and Trevino (2002) emphasized the importance of every member of the school community understanding and promoting academic integrity. The student and faculty survey responses indicated that there has been a shift in behaviors towards increased academic honesty, indicating that the initial implementation of the honor code was effective. Data analysis of faculty item number one, students copying from another student on a test; faculty item number two, students using unauthorized prepared materials; faculty item number four, students submitting another student's work; faculty item number five, students submitting plagiarized assignments, and faculty item number six, students disclosing test questions/answers, showed the faculty reported significantly fewer incidents in January 2010 than in August 2009, indicating that the faculty believed the use of an honor code had diminished cheating among students in these five areas. The only faculty survey item that the data analysis did not show a statistical significant change of academically dishonest student behaviors was in item number three, students using unauthorized electronic devices. In contrast, the data analysis did not show a statistical significance in the change of academically dishonest student behaviors in any of the same six student survey items, indicating that the students believed the use of an honor code had little to no effect on the frequency of their cheating in these six areas.

However, it is noteworthy that the student and faculty data were trending in the correct direction, with each survey item in all six categories showing some decrease in the mean when comparing student and faculty survey responses from August 2009 to January 2010. A comparison of the descriptive statistical analyses of the data for each of the six student survey items versus each of the six faculty survey items indicated that both groups showed a marked drop between the means of all six items from August 2009 and January 2010. However, occurrences reported in survey item number three, students using unauthorized electronic devices, showed the least change between the means in both the student and faculty responses. Survey item number three was also the only item not to show any statistical change as revealed by the faculty survey response.

Data analysis of school discipline incidents from the 2008-2009 and 2009-2010 school years was also used to establish if the introduction of an honor code had the desired effect of deterring academic dishonesty at Tampa Catholic High School as measured by trends in student disciplinary referrals to the Dean's Office. The student discipline data showed the initial implementation of the honor code was well received resulting in fewer reported incidences of students cheating. Comparison of the first semester data for the past two years showed a 38% decrease in the number of students disciplined by the Dean's Office for academic dishonesty. Ten students had been disciplined by the Dean's Office for incidences of cheating during the first semester of 2009, as compared to sixteen students during the first semester of 2008.

However, simply implementing an honor code will not assure that cheating will be reduced. For example, McCabe and Trevino (2002) found that "creating a culture of academic integrity takes years to achieve and demands the commitment of all members of the campus community" (p. 41). Every member of the school community has a responsibility to support and uphold this culture of academic integrity. Once attained, even a successful honor code "culture requires constant attention and renewal" (p. 41). Rules must be continually developed and implemented. An environment of integrity must be constantly fostered and reinforced. Envision how different the culture of academic integrity at Tampa Catholic High School could be in four years if each incoming freshman class continuously receives the message that the honor code is important in all aspects of student academic life.



An environment of integrity must be constantly fostered and reinforced.

Successful honor codes require more than the one semester of introduction that was allotted during the implementation of this action research project at Tampa Catholic High School. Although the data from Tampa Catholic High School is trending in the correct direction, analysis of one semester of student survey data showed the honor code had no statistically significant effect on student cheating. One interpretation is that the honor code had not been in place long enough to become part of the school's culture, and thereby, show a statistical significance in the change of academically dishonest student behaviors. Another interpretation may be that because the honor code has been in use at the school for such a short period of time, the students have not seen its disciplinary policies put to enough use to be considered a deterrent to cheating. Simply knowing that the

school has an honor code does not guarantee that the school, the teachers, or the students will uphold the policies of the honor code (Vandehey, Diekhoff, & LaBeff, 2007).

Application of Findings

This action research has revealed that, after one semester of use, honor code findings are trending in the appropriate direction, suggesting the desired effect of reducing cheating at Tampa Catholic High School. A comparison of the statistical analyses of the data for each of the six student survey items versus each of the six faculty survey items indicated that both groups showed a marked decline between the means of all six items from August 2009 and January 2010. Also, comparison of the first semester data for the past two years showed a 38% decrease in the number of students disciplined by the Dean's Office for academic dishonesty. However, as McCabe and Trevino (2002) found, there must be a continued effort by the entire school community to accept and provide their support for this new culture of academic integrity.

Administration, faculty, and students must continue their commitment to this new course of action. From my own observations during the implementation of this project, once the new honor code was introduced during the faculty and student orientation meetings at the beginning of the 2009-2010 school year, there was no subsequent school-wide reinforcement to ensure that continued education and enforcement of honor code policies were being consistently practiced in each classroom. My recommendation, therefore, is for the Honor Code Committee and the faculty and administration of Tampa Catholic High School continue their efforts to educate and stress to the students the importance of academic integrity. The faculty and administration must continue to make consistent, sustained efforts to support and enforce the honor code policies. In situations where students would be tempted to cheat, continued emphasis must be placed upon faculty vigilance and prevention measures. Students must receive consistent messages about the importance of honesty and integrity in all academic situations throughout their high school experience, otherwise, "the message and the resulting desired behaviors will lose their perceived importance and seem relevant in only certain situations" (Engler, Landau, & Epstein, 2008, p. 101).

Another element that is critical to the success of an honor code is that the students must participate in the development and implementation of the honor code (McCabe & Trevino, 1993, 2002). Therefore, it is my recommendation that Tampa Catholic students in leadership positions help with the future direction of the honor code. The research stressed that students must be involved in discussions about academic integrity and in efforts to change and nurture a culture of academic honesty within a school. The eventual success of an honor code depends on getting students to be accountable for the culture of academic integrity within their school, not only for their own actions but for that of their peers, as well (McCabe & Trevino, 2002). All students should be responsible to help "create and sustain an environment where most students view cheating as socially unacceptable" (p. 40).

Prior research (Broussard & Golson, 2000; McCabe & Trevino, 2002) suggests that another way for Tampa Catholic High School to apply the findings of this action research is through the creation of an Honor Council comprised of administration, faculty, and students whose purpose would be to support the goal of fostering a culture of academic integrity at the school. This

Honor Council would be responsible for overseeing continued education and enforcement of honor code policies, reviewing student violations of the honor code, and making recommendations regarding honor code policies and student violations to the Principal and the Dean of Students of Tampa Catholic High School. The Principal and the Dean of Students would ultimately be responsible for all final decisions related to student violation of the honor code. Honor Council students can also play an active role in planning activities that promote academic integrity on campus, such as leading presentations during student orientation and class meetings, creating classroom and hallway bulletin boards, and gathering student signatures on an honor pledge banner that is hung in a prominent place in the school, such as the office or the cafeteria. At each school Mass, this banner could also be brought forward to the altar with the offertory gifts as a reminder to the students the pledge of academic integrity they have previously taken.

Dissemination

The results of this action research project were informally shared with the Tampa Catholic Honor Code Committee at a meeting on March 12, 2010. During this meeting I discussed how the Dean's Office has seen a 38% reduction in the number of students being disciplined for academic dishonesty in the first semester of 2009 as compared to the first semester of 2008, as well as a decline in the means of all six items mentioned in the surveys administered in August 2009 and in January 2010. At this meeting, the Honor Code Committee discussed the possibility of organizing of an Honor Council to oversee continued education and enforcement of honor code policies. This Honor Council is the current focus of the Honor Code Committee with the objective of placing Council members by the 2010-2011 school year.

I formally shared the results of this study with the faculty of Tampa Catholic High School via a presentation at the May faculty meeting at the end of the 2009-2010 school year. My discussion included a PowerPoint presentation that highlighted my findings and discussed how research has shown that continued education and enforcement of honor code policies must be consistently adopted in each classroom for the continued success of the honor code.

A presentation was organized at the beginning of the 2010-2011 school year during the student orientation meetings using the same PowerPoint presentation that was presented to the faculty at the end of the 2009-2010 school year. This was done in conjunction with the newly organized Honor Council. Student members of the Honor Council played a major role in the presentation to each grade-level of students. Research by McCabe & Trevino (2002) has shown that it is critical to the success of an honor code that students participated in the development and implementation of the honor code.

Limitations

A limitation of this study was that it was only able to examine one semester of the effects an honor code had on academic integrity and student cheating behaviors. Although the initial implementation was successful and the data reflected a decrease in the statistical means, a study of this nature is best conducted by continued yearly data analysis to observe its benefits. Future examinations might want to consider conducting data collection at the end of each school year to assess the effectiveness of honor code policies and procedures used and implemented during that

year. In this way, honor code policies and procedures that were successful could continue to be reinforced the following school year, while honor code policies and procedures that were not successful could be modified or eliminated.

Another limitation of the study involved the responses of the survey participants. Three concerns were identified involving the responses. First, this study had a small student sample size (approximately 20% of the student body) and low faculty participation. A recommendation would be to survey more students, and to increase faculty awareness of the importance of the study. Future surveys could be administered by computer or by using optically scanned response forms in order to allow for easier data collection, and thus, increase sample size. Second, in order to get the student participants to answer questions about the sensitive topic of cheating habits, the survey was anonymous. There was no way to identify if student participants were answering the survey questions honestly and accurately. A recommendation would be to explain to student participants the importance of answering the survey questions honestly and accurately, and to ask the students to refrain from frivolous or flippant responses during participation. And finally, the interval scales of measurement used in the survey responses might not have accurately reflected cheating frequencies. This survey used *never*, *sometimes*, *often*, and *always* as theoretically equal response options to the six survey questions with each of these four responses having an assigned frequency number in the provided answer key (see Appendices A and B). Any misunderstanding of the responses may have caused students and faculty to underestimate or overestimate frequencies of cheating behaviors. One faculty participant suggested that two additional response options, *rarely* or *frequently*, could have been added in or substituted for *sometimes*, *often*, or *always*. Therefore, a re-examination of the survey's four scales of measurement would be a suggestion to consider for future survey responses, so that the responses are not viewed as a limitation by the participants in the study.

A final limitation of this study was the lack of supplementary school-wide reinforcement of academic integrity education for students and faculty after the initial orientation meetings at the beginning of the school year. For reinforcement purposes, the faculty and students need to be given academic integrity education information at regular intervals (Cizek, 1999; Lathrop & Foss, 2000; McCabe, 1999; McCabe & Trevino, 2002; Strom & Strom, 2007; Vandehy, Diekhoff, & LaBeff, 2007; Whitley & Keith-Spiegel, 2002). Additionally, there was no way to be sure if the teachers were continually reinforcing the honor code in class with the students. The school administration and the Honor Code Committee should stress to the faculty the importance of continual classroom reinforcement of the honor code policies. Some type of accountability system should be implemented to make sure such reinforcement is occurring.

Future Directions

Data analysis and general reactions of the students and faculty at Tampa Catholic High School indicated the initial implementation of the introduction of the honor code was successful and well received, resulting in a decrease in the number of students' self-reported incidences of cheating and a decrease in the number of students that were disciplined by the Dean's Office for cheating during the first semester of 2009. Along with this success, a question of interest for future direction is what can the administration, faculty, and students of Tampa Catholic High

School do to continue to reinforce the realized benefits of creating a school culture of academic integrity?

Future directions for this study should capitalize upon this initial success and move forward to continue to foster a culture of academic integrity at the school. The Honor Code Committee should organize an Honor Council to be active as early as the beginning of the 2010-2011 school year to take advantage of the positive momentum the initial implementation of the honor code has created, to direct continued education and enforcement of honor code and academic integrity policies, and to oversee student infractions of the honor code. It is imperative that student leaders have a say on this Honor Council, as McCabe and Trevino (1993, 2002) found that schools with the lowest levels of cheating had students helping with the establishment and administration of academic integrity policies.

Another way in which school administrators can support the process of fostering a culture of academic integrity is by having professional development workshops during faculty meetings that emphasize academic integrity. Faculty training in anti-cheating strategies can alert teachers to academically dishonest student behaviors, especially those that are based on opportunities created by new information technologies (McCabe, 1999; McCabe & Trevino, 2002). The Internet and electronic mail have created new problems for students and teachers alike regarding plagiarism and collaboration on assignments. Tampa Catholic High School administrators should be lauded for their commitment to the success of the honor code by just recently, in January 2010, allocating funds from the current budget for school-wide use of the anti-plagiarism database, Turnitin.com.

Conclusion

The importance of this action research project underscores the fact that the effects of dishonesty are not limited to schools. Cheating has become a serious, pervasive societal problem. As educators, it is our responsibility to address the issue of academic dishonesty. Moreover, as Catholic educators, we have a moral and ethical obligation to help our students understand the ramifications of dishonesty and cheating (CCE, 1998). When honesty is encouraged, the benefits overlap into our students' everyday lives. Adolescents are in the process of formulating their personal attitudes and ethics regarding social conduct that they will espouse and model in their adult lives. Therefore, the promotion of academic integrity and ethical behavior at this stage in their development is vital, and will have a direct impact on the futures of these students, their families, and our society, as a whole (Strom & Strom, 2007).

Adolescents are in the process of formulating their personal attitudes and ethics regarding social conduct that they will espouse and model in their adult lives.

Ultimately, as Catholic educators, we must help the students entrusted to our care understand that adopting a lifestyle of honesty and integrity benefits all. Broussard and Golson (2000) found that an honor code can build trust among students in a Catholic school. As Catholic educators, we hope that this trust will then carry forward into all aspects of our students' daily lives allowing them, especially once they

leave our schools, to build healthy, trusting relationships with others. Catholic schools are renowned for their ability to create family communities within schools. Trust is an essential element of community building. Honor codes should, therefore, be an integral part of a Catholic school, because by building small communities of trust with each other, students, in turn, have the foundation that allows them to build trust within the larger communities of the Catholic Church, society, and humankind.

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Appendix A
Sample Survey Protocol

Student Survey on Academic Honesty - Tampa Catholic High School

You are being asked to complete this survey as part of an educational research project. This survey is completely anonymous. Your return of this voluntary survey is consent to participate in this study. Please respond to the following questions by circling the answer that is best for you; there are no right or wrong answers. Remember that your answers are anonymous and will only be reported as group averages.

Answer Key: Never = 0 times Sometimes = 1 - 4 times
 Often = 5 or more times Always = every time

Please indicate if you, during your entire academic career as a Tampa Catholic student, have participated in the following actions:

1. I have copied from another student during a quiz, test, or exam.

never sometimes often always

2. I have used unauthorized prepared materials (example: a cheat sheet, writing on hand, etc.) during a quiz, test, or exam.

never sometimes often always

3. I have used an unauthorized electronic device (example: calculator, cell phone, iPod, etc.) for assistance during a quiz, test, or exam.

never sometimes often always

4. I have submitted as my own, an assignment that was either entirely or partially written/completed by someone else.

never sometimes often always

5. I have submitted as my own, an assignment that was either entirely or partially copied from the Internet or another source, without using proper citation (plagiarism).

never sometimes often always

6. I have given test/quiz questions or answers to another student who will be taking the same test/quiz at a later time.

never sometimes often always

Appendix B

Sample Survey Protocol Faculty Survey on Academic Honesty - Tampa Catholic High School

You are being asked to complete this survey as part of an educational research project. This survey is completely anonymous. Your return of this voluntary survey is consent to participate in this study. Please return the completed survey to Camille Jowanna's school mailbox. Please respond to the following questions by circling the answer that is best for you; there are no right or wrong answers. Remember that your answers are anonymous and will only be reported as group averages.

Answer Key: Never = 0 times Sometimes = 1 - 4 times
 Often = 5 or more times Always = every time

Please indicate if you have experienced Tampa Catholic students participating in the following actions:

1. Copying from another student during a quiz, test, or exam.

never sometimes often always

2. Using unauthorized prepared materials (examples: a cheat sheet, writing on hand, etc.) during a quiz, test, or exam.

never sometimes often always

3. Using an unauthorized electronic device (example: calculator, cell phone, iPod, etc.) for assistance during a quiz, test, or exam.

never sometimes often always

4. Submitting as their own, an assignment that was either entirely or partially written/completed by someone else.

never sometimes often always

5. Submitting as their own, an assignment that was either entirely or partially copied from the Internet or another source, without using proper citation (plagiarism).

never sometimes often always

6. Giving test/quiz questions or answers to another student who will be taking the same test/quiz at a later time.

never sometimes often always

Appendix C

Sample Survey Protocol Homeroom Teacher Instructions for Student Survey on Academic Honesty Tampa Catholic High School

Homeroom Teacher: _____

Grade level: _____

Important: Please do not allow any conversation or discussion among students during administration of this survey.

Dear Colleague,

Attached, you will find a packet of surveys to hand out to your homeroom students. Please stress to the students the survey is anonymous and they should answer the questions honestly. They will not be penalized or "get in trouble" for honest answers.

Advise all students that when they are finished with the survey, they are to fold the survey in half and leave it on their desk for the homeroom teacher to collect. To ensure the students' anonymity, please do not allow any students to collect the surveys from other students or to have access in any way to other students' completed surveys.

Please make sure this cover sheet is included with the completed surveys. I will come by your classroom today during Period 1 to pick up the surveys. If I somehow miss you in your classroom, please put the completed surveys in my mailbox later today.

Thank you so much for your help,

Camille Jowanna