

STEMMING THE TIDE OF ACADEMIC DISHONESTY IN HIGHER EDUCATION: IT TAKES A VILLAGE

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ABSTRACT

Universities stand for truth and knowledge. Academic integrity is the ideal we hold up to our students and ourselves. It's based on respect for the work we do and respect for the work of others. The current state of academic dishonesty on campus is a threat to the morality of the students, the integrity of their grades, and the reputation of our institutions of higher education. This article explores issues surrounding academic integrity with an eye toward considering what can be done. It discusses the breadth and types of cheating (including plagiarism), the impact of technology, ways to prevent or limit its occurrence, and ways faculty might respond when it occurs. The discussion is enriched by the results of two surveys about academic integrity conducted in late 2012 and early 2013—one of faculty and one of students. Results reveal and compare the concerns and suggestions of both groups.

INTRODUCTION

It's in the air. We know it's there. And students need to know we care.

But confirming it and deciding what to do about it—that's more challenging. The "it" here refers to academic dishonesty. Concerns about letting breaches of

academic integrity go unchallenged go from concern for the student him/herself to concern for the reputation of your institution to concern for the ethics that the student will bring into the business or medical or home improvement fields we depend on.

Studies confirm our sense that cheating is rampant in the Academy. For purposes of this study, “cheating” includes acts of plagiarism unless a distinction is made. It has been with us for at least decades, but has increased in recent years perhaps related to the impact of technology. In a 2010 study of over 1,000 Yale undergraduates, more than half of the respondents indicated they had seen cheating during their years at Yale (Burt, 2010). The International Center for Academic Integrity at Clemson University reports that “73% of all test takers, including prospective graduate students and teachers, agree that most students do cheat at some point. 86% of high school students agreed” (ICAI–Statistics, n.d.). Evidence of the growth of academic dishonesty is seen in the number of cases brought to Yale’s highest disciplinary body as reported by Burt (2010) Twenty-four cases in 2006-2007 tripled to 72 cases in 2009-2010. A study of business school deans (Brown, Weible, & Olmosk, 2010) gives us another idea of the growth in academic dishonesty. They compared studies over several decades. The number of students who acknowledged acts of academic dishonesty rose from 49% in a 1988 study to 100% in a 2008 study. Though the study methodologies and populations vary, it seems clear this is a significant problem in education today.

Academic dishonesty doesn’t start in higher education, but most faculty and many students feel something needs to be done to put on the brakes. The question is what. If we can’t make the point to our students, what will these ethics (or lack thereof) bring to our larger world! With a view toward recognizing it in the classroom and taking actions to prevent it, this article will look into several aspects of academic integrity on today’s campus. We will explore the various forms it can take, its relevance in the expanding field of online education including MOOCs, and how faculty might tackle the elusive issue of proof.

Many of us are working on this issue in a vacuum in our individual classrooms but this has not proven productive. The authors explore efforts being made in several institutions to encourage academic integrity and to respond to acts of dishonesty. In addition, the authors conducted two surveys on this subject—one of faculty and a parallel survey of students. Both groups were asked about their perceptions of the frequency of cheating, the prevalence of various types of cheating, a comparison of the frequency in online versus traditional classrooms, and a comparison of the frequency by honors and non-honors students. The results of these surveys will be discussed.

With this collective wisdom we will finally discuss some of the possible ways faculty can consider making an impact on academic dishonesty.

ACADEMIA AND BEYOND

Academic dishonesty doesn't start in higher education and, unfortunately, it doesn't stop there either.

Elementary School

Children in elementary school are often assigned team projects. When they are then required to work independently, confusion often sets in resulting from the different set of rules acceptable for these different types of activities. High-stakes standardized testing mandated by each state through No Child Left Behind usually starts in third grade. About this time children start to become involved in after-school activities and sports, leaving very little time for out-of-class educational enrichment/reinforcement.

Parents, thinking they are helping their children, sometimes send the wrong message by their over-involvement in children's projects and homework. As a result, parents are denying the children the opportunity to do the work themselves and to experience the resulting satisfaction or frustration. In addition, parents are unintentionally condoning the practice of having other people complete our work. When grades and high achievement become the sole motivating factors, the focus shifts from the value of learning to simply the acquisition of a good grade. This type of focus then continues throughout schooling and may explain to some extent why cheating is so ubiquitous in high school, college, and even professional schools (Schellenbarger, 2013).

When students get to high school, they may have already cheated or been pressured to cheat by giving up answers to other students. Peer pressure plays a part in the upper elementary grades and sometimes results in bullying.

High School

Stuyvesant is one of nine specialized high schools in New York City. For admission, students must pass a special test called the Specialized High School Admission Test (SHSAT). Students who attend Stuyvesant have their sights set on acceptance into prestigious universities such as Harvard (Kolker, 2012).

The pressure to excel is omnipresent and ingrained in school culture. Students who excelled in elementary school are now competing with their equally high achieving classmates. These students are not accustomed to this challenge and must work extra hard just to maintain their status. This presents a very stressful environment where every point on a test or homework assignment could make a difference in setting one apart from others.

In the spring of 2012, 71 juniors at Stuyvesant High School were caught exchanging answers to Regents exams through text messages. The ringleader had investigated the testing environment very carefully and organized a team

of students considered to be “experts” in various subject matter areas. The ringleader was the physics expert but depended on his friends for assistance on the Spanish and U.S. History Regents exams. The ringleader plus 11 other students received a 10-day suspension while more than 50 other students were suspended for 5 days. This episode epitomizes cheating on a grand scale and is extraordinary; however, lower level cheating such as homework copied from a Facebook page or getting answers from students who took a test earlier in the day is much more common (Yee, 2012).

According to students, some teachers turned their backs on cheating episodes knowing how reporting an incident could have severe repercussions for a student—especially a senior who had already gained admittance to an Ivy League institution.

Competition for the limited number of spaces available at the schools of choice is one of the factors driving the cheating. Students felt that if others were cheating, they too must cheat in order to secure their academic future and beyond.

Since SAT scores play such a decisive role in college admissions, students sometimes resort to unorthodox methods to earn a high score. At Great Neck High School, an affluent district in Long Island in New York State, some students paid as much as \$3,600 for other students to take SAT and ACT tests for them (Anderson & Applebome, 2011). To avoid recognition, test takers would schedule exams at testing locations outside their immediate area where they would not be recognized. Once this scandal was revealed, steps were taken to ensure proper authentication as well as the assignment of additional exam proctors.

The mandates resulting from No Child Left Behind legislation stressing greater accountability on schools exerted pressure on both administrators and teachers to increase scores on standardized tests. Besides the federal funding at stake, in some cases teacher raises were aligned with student performance. As a result, some teachers have resorted to cheating on behalf of their students in an effort to increase scores.

In Glen Cove, Long Island, another affluent district, student test scores will be a factor in teachers’ job performance evaluations. Under investigation is the claim that 18 teachers from two elementary schools in the district coached students on 3rd and 5th grade English and math tests in spring 2012 to boost student test scores. In the wake of the scandal, the superintendent of the district resigned in May 2013. To combat any alleged improprieties going forward, two proctors will be assigned to each exam room with one additional administrator available in each building (Fleisher & James, 2013).

Last spring an alleged cheating scandal involving 58 schools in Atlanta, Georgia, was exposed. Thirty-five educators plus newly retired district superintendent Beverly L. Hall were indicted by a Fulton County grand jury on criminal charges. Dishonest behavior involved changing incorrect answers, supplying correct answers for omitted questions, and coaching students. Not only that,

teachers were pressured into participating in this unethical activity and were rewarded monetarily for their deceptive practices (Carter, 2013).

Another scandal was revealed under Michele Rhee, a well-known education reformer and former Chancellor of Washington public schools. The claim relates to suspicious grade increases and unusual exam erasures (Winerip, 2011).

Philadelphia, Chicago, and many other major cities in the United States have also been allegedly involved in cheating scandals. Ironically, these urban districts are just the ones that need the federal funding to offer better education to their struggling students.

College

One of the most recent allegations of cheating in higher education occurred in a course at Barnard College, an undergraduate women's college of Columbia University. The course had a reputation as being easy and a low stress literature course. However, in light of reports circulating concerning shared quiz answers, unearned grades, and even bribery, the course garnered much attention and became more serious. A final exam, which was not originally part of the course, was given in a large auditorium instead of the cramped classroom where the 120 students usually met. No cellphones or bags were permitted at student desks in the auditorium, and additional proctors were assigned. These are just some of the changes initiated to revamp the course structure in light of recent cheating allegations. In-class quizzes that students graded each other on and a single short paper constituted the former requirements; now, however, the tightly controlled final exam will serve as the basis for the final grade. Another change planned will be a reduction in class size from 120 to 40 students, enabling the instructor to see clearly all students and any improper behavior that may ensue (Kaminer & Leonard, 2013).

Presently, each of Columbia's four schools has its own honor code. The Student Government Association of Barnard recently joined with student governments from the other undergraduate programs suggesting the creation of one unified honor code for all (Kaminer & Leonard, 2013).

In August 2012, 125 out of 279 Harvard undergraduate students were alleged to have cheated on a take-home final exam in Government 1310—Introduction to Congress. This course had a campus reputation as being an easy course so students had preconceived notions and expectations when enrolling. As the instructor read over the final exam papers, he discovered many similarities and notified the Harvard Administrative Board for further investigation (Levitz, 2013).

Following up on these allegations, last February the *Wall Street Journal* reported that after intense investigation, more than half the students were forced to withdraw from Harvard. This temporary withdrawal period typically lasted from two to four semesters. About one-quarter of the remaining half were put on

disciplinary probation—a strong warning that becomes part of the student’s official file. The other quarter were not punished (De Santis, 2013).

Harvard is now considering instituting an honor code and wants to ensure that no ambiguity exists regarding academic integrity and the consequences for violation thereof (Schworm, 2013).

A different perspective on this incident is told by Harvard students. They claim that some of the conduct now being condemned was perfectly acceptable on tests given in previous semesters. As usual, the final grade was based entirely on four take-home exams graded by the teaching assistants. However, the teaching assistants varied in their grading and in assisting students. To combat this ambiguity, students began sharing lecture notes, reading materials, etc. Instructions on the final exam explicitly stated that students should not discuss the exam with others. However, in past semesters it was common knowledge that students went to teaching assistants for help and even answers (Perez-Pena, 2012).

The biggest cheating scandal in the University of Central Florida’s history occurred in May 2010 when 200 out of 600 students in a capstone management course obtained access to the final exam ahead of time. All 600 students were required to take a new exam; the students who admitted to cheating were required to attend a 4-hour ethics course. Upon completion, their records would be expunged. Those who were guilty but did not come forward faced expulsion (Plafke, 2010).

In 2007, collaboration on a take-home final exam occurred at the Fuqua School of Business at Duke University involving 34 first-year MBA students. In addition to the final exam violation and the overall violation of the honor code, similarities on assignments that had been submitted previously in the semester were noticed by the professor. Nine students were expelled, 15 were suspended for a year and failed the class, 9 more failed the class, and the remaining student earned a failing grade on the assignment (Damast, 2007).

Besides doing harm to the institution, this scandal brought the fact to light that cheating in business school is common. “Fifty-six percent of graduate business students admitted to cheating one or more times in the past academic year, compared to 47% of nonbusiness students, according to a study published in September in the journal of the *Academy of Management Learning & Education*.” The implication of these actions on future behavior in the business world is troublesome (Di Meglio, 2006).

Included in the spectrum of academic dishonesty is also grade tampering. A University of Oklahoma student broke into the school computer system and changed the passwords of six faculty members without their knowledge. He then changed his grades not allowing faculty access to the network (De Santis, 2013c).

Another grade tampering incident occurred at Miami University in Ohio. Students used a key logger program to capture faculty members’ usernames and passwords for unauthorized entry into the computer system. One of the students allegedly changed his own grades in 17 classes and changed those of more than

50 other students. The other student changed his own grade and that of two other students (De Santis, 2013b).

Professional Schools

About 78 Air Force cadets received help on an online calculus final exam from Wolfram Alpha, an online program that was to be used only for homework. In 2007 and 2004 other cheating scandals plagued the Academy (Omer, 2012).

In 2011 at Upstate Medical University in Syracuse, less than half of the 154 4th-year medical students cheated through collaboration on online quizzes in a required medical literature course. Besides those who cheated, others who were aware of these honor code violations did not report the cases (Mulder, 2011).

Nearly half of the 2nd-year students at Indiana's School of Dentistry were found to have either taken part in or had knowledge of and did not report an incident involving breaking into password-protected files to get a sneak preview of images on an exam. This breach of academic integrity resulted in 9 dismissals, 16 suspensions for various lengths of time, and 21 letters of reprimand. This class had just under 100 students (Powers, 2007).

In addition to students cheating, educators have also been found guilty of plagiarism and misrepresenting their qualifications. For example, an assistant professor at Amherst College in Massachusetts plagiarized some of her work as she was being evaluated for tenure and has since resigned (Reyes, 2012). Also, a long-time Towson University professor is being investigated on charges of plagiarism and not using proper attribution of sources (Mytelka, 2013).

Beyond Academia

Academic dishonesty is not only ubiquitous in academia but also in society. Scandals and improprieties are regularly front-page news and have been observed in disparate fields such as business, journalism, sports, government, religion, etc.

The corporate scandals of the 1990s involving companies such as Enron, World Com, and Tyco—just to name a few—justified the oxymoronic moniker “business ethics.” We learned from those scandals as well as from the Martha Stewart and Bernie Madoff incidents of the 2000s that the business world needs to set an example of acceptable, ethical behavior. Many individuals were financially ruined from these so-called victimless crimes perpetuated on innocent individuals resulting in business being viewed with much public cynicism and repugnance.

In the world of journalism, James Frey enchanted Oprah during a broadcast about his memoir *A Million Little Pieces* detailing his addiction to drugs and alcohol and involvement in criminal behavior. Oprah adopted the book for her book club, which aided in the book's popularity. However, investigation into court documents, police records, and interviews with court personnel and other sources indicated that Mr. Frey lied and radically embellished his life of addiction and crime (Wyatt, 2006).

Fareed Zakaria, a writer for *Time* and CNN host, admitted to plagiarizing an article he wrote for the *New Yorker* on gun control last August. His punishment was a one-month suspension pending review. Zakaria was also criticized last spring for giving a commencement speech at Harvard that was very similar to one he had delivered previously at Duke University. Mr. Zakaria is a Harvard graduate (Haughney, 2012).

Jayson Blair, a young *New York Times* reporter, lied and cheated his way through story after story for years—36 out of 73 stories. He fabricated sources, plagiarized material from other publications, and pretended to be at places he never visited. The problem, once fully investigated and made public by the *New York Times* itself, brought down not only the reporter but also the executive editor and managing editor of the newspaper. This was an unprecedented blow to the newspaper which prides itself on and embodies its motto “All the News That’s Fit to Print” (Sullivan, 2013).

In the sports arena, Lance Armstrong admitted in 2013 that he did in fact use performance-enhancing drugs resulting in loss of his seven Tour de France titles.

The ongoing steroids issue in baseball has tainted the careers of Barry Bonds, Sammy Sosa, and Roger Clemens and so far has been a factor in denying them admission into the Baseball Hall of Fame. Many other players have admitted to using performance-enhancing drugs including Mark McGwire (Schad, 2013). Tiger Woods was not guilty of any dishonesty in his game of golf, but he committed other indiscretions in regard to marital infidelity.

Throughout the past 10 years, the fields of politics, government, and the military have been hit hard with allegations and confessions of extramarital affairs. For example, President Bill Clinton, Senator John Edwards, Governor James McGreevy, Congressman Mark Sanders, Governor Eliot Spitzer, Governor Arnold Schwarzenegger, General David Petraeus, Gary Hart, Newt Gingrich, Congressman Anthony Weiner—just to mention a few—have confessed publicly expressing their sorrow and seeking forgiveness.

BREACHES OF ACADEMIC INTEGRITY

Types of Cheating

Cheating takes many different forms and extends over a significant range of behaviors. Cheating related to assignments can range from copying one answer to submitting an entire assignment taken from another source. While this work may come from a classmate, it can also be taken from an unknowing source or even purchased. This same range of behaviors applies to papers—copying some or all, stealing from another student’s submission, or paying for a paper. A similar range applies to exams. The growth of online courses brings its own varieties—not the least of which is the opportunity to pay someone to take an entire course for the enrolled student.

Many schools classify acts of academic dishonesty into categories such as cheating, plagiarizing, and fabricating. One of the more comprehensive lists of categories comes from Empire State College of the State University of New York (“SUNY Empire State College–Breaches of Academic Integrity,” n.d.). They include Cheating, Fabrication, Misrepresentation, Plagiarism, Unauthorized Collaboration, Abuses of Confidentiality, Damaging, Stealing or Misusing the Property of the College and Others. Table 1 shows those categories and some sample behaviors representing each. (For additional examples, see <http://www.esc.edu/academic-integrity/breaches-academic-integrity/>)

Table 1. Types of Cheating Behavior and Examples

Classification	Sample behaviors
Cheating	<ul style="list-style-type: none"> • Submit work done by another • Submit work already submitted to another class
Fabrication	<ul style="list-style-type: none"> • Invent date, information, sources • Collect data from unacceptable sources or use inappropriate methods
Misrepresentation	<ul style="list-style-type: none"> • Make intentional false statements or forge documents • Misuse data to draw unwarranted conclusions
Plagiarism	<ul style="list-style-type: none"> • Submit or paraphrase material without proper attribution • Use someone else’s data or code in a computer exercise
Unauthorized collaboration	<ul style="list-style-type: none"> • Submit the work of a group for individual credit
Abuses of confidentiality	<ul style="list-style-type: none"> • Use information from another without permission
Damaging, stealing, or misusing the property of the college and others	<ul style="list-style-type: none"> • Interfere with the work of another to advance oneself • Misuse computer resources • Use or distribute material without copyright permission
Conflict of interest	<ul style="list-style-type: none"> • Let one’s private interest interfere with one’s professional obligations as a member of the larger academic community
Aiding and abetting academic dishonesty	<ul style="list-style-type: none"> • Providing material, information, or assistance to another who commits a violation of academic integrity

The authors addressed this topic in their study. One hundred and thirteen faculty responded to the faculty survey and 171 students responded to their survey. Both groups were asked to indicate which types of cheating they thought were most prevalent from a selection provided. The choices ranged from copying to paying someone else (see Table 2). There were similar responses on the popularity of several types including copying one answer in an assignment and including uncited information as one's own. They differed, however, when it came to paying someone to do their work—take a test or write a paper. In both cases, faculty felt these forms of cheating were more common than did students. Twelve percent of the faculty but only 3% of the students felt paying a substitute test-taker was a frequent form of cheating. Similarly, 33% of the faculty but 12% of the students indicated that paying someone to write a paper was common.

The Role of Technology

Technology has been a boon to higher education. We can bring resources into our classrooms including even students and experts from distant lands. However, it has had an unfortunate impact on academic integrity. Incidents of plagiarism have skyrocketed while respect for the intellectual property of others has taken a corresponding nosedive. Copying and pasting has become so routine that it's easy to lose sight of the fact that this is stealing.

But plagiarism is not the only way technology is used to support academic dishonesty. Portable digital devices of all sizes and shapes abound—laptops, netbooks, tablets, iPods, smartphones, even the earlier cellphones are all potential

Table 2. Forms of Cheating

What forms of cheating do you feel are more common?		
	Faculty %	Student %
Copy an assignment answer from another student	53	71
Copy an entire assignment	40	33
Copy an answer to a test question	42	53
Copy an entire test	13	17
Include uncited portions of information from another source	65	50
Hand in a paper written by someone else	37	37
Pay someone else to take a test	3	12
Pay someone to write a paper	12	33
Other	7	10

instruments of cheating. Quick access to information from inappropriate sources may get assignments completed more quickly, but at what cost to learning. The smaller devices can even be used during exams without detection thus allowing answers to be shared via texting or even whole tests via cameras. Students have developed many creative ways to cheat and have shared them—through technology. A YouTube search for “cheat in school” returns over a half a million hits with results ranging from the low tech (*How to cheat in a test using a coke bottle!*, 2007) to the more modern (How to cheat on a test [Nano iPod], 2013). One enterprising group of five friends used a Google Doc to create an online, collaborative document they could each access and add to during a test (Young, 2013). Cheating with Bluetooth devices such as pencils and metallic bracelets have also been reported (“New forms of cheating found in college tests | The Jakarta Post,” n.d.)

Cheating in Online Classes

Another area in which technology has made a big impact is in the expansion of eLearning. Not only are the number of online courses and degrees growing rapidly, but also the opportunities to cheat. Besides the chances for unauthorized collaboration on assignments, the ways to look up exam answers on the spot, and the ease of plagiarism, the issue of authentication becomes important. How will the instructor know who’s taking the test! In fact, how will the instructor know who’s taking the whole course. A cottage industry has been spawned to serve the needs of the online student who cares about their grade, but not about learning. For a fee, someone will take the entire course for the student—in one case at least guaranteeing an A or B grade in the course (Perry, 2012).

It would seem that the high rates of cheating found in the traditional classroom would be even higher in the online class with no authority figure physically present. The ease of accessing information directly and from other students online along with the abundance of video tutorials all support that likelihood. In one study of 635 students, they were asked whether they would be more likely to cheat in an online or traditional course. The students indicated “they were almost four times more likely to be dishonest in online classes than live classes (42.2% to 10.2%) and that their classmates were over five times more likely to cheat (61.0% to 11.5%)” (Watson & Sottile, 2010). An online environment presents overwhelming temptation to some. One first-generation college student who takes mostly traditional courses indicated that the only course he cheated in was his one online course (Young, 2013, p. 3). However, results are not unanimous. Some studies indicate that the amount of cheating in online and traditional courses is similar (Grijalva, Nowell, & Kerkvliet, 2006).

MOOCs (Massive Open Online Courses) also bring issues of cheating. MOOCs aim to be well-developed online courses taught by world-class instructors and free to the student. The first MOOC was offered in 2011. Sebastian Thrun of

Stanford University opened his Artificial Intelligence course with a resulting enrollment of over 150,000 students from around the world. The factors in cheating discussed above for online courses are magnified in these courses with hundreds to thousands of enrolled students in each. Although MOOCs may offer Certificates of Completion, since they did not offer academic credit, it was surprising to find the amount of cheating. One professor from the University of California, Berkeley was astounded to find groups of 20 people in a class submitting the same homework (Pappano, 2012). In some courses, peer evaluations play a significant role in grading. Students in a humanities course complained about the amount of plagiarism. Besides submitting work that is not one's own, authentication of students in such large groups is a challenge. Policing this number of students is not only difficult, but also not part of the original purpose of a MOOC. However, as MOOCs develop and go mainstream, it is becoming more important.

We were interested in finding out how both the faculty and students in our study felt about the prevalence of cheating in online classes. Both groups were asked "Do you believe cheating is more common in online courses?" They could respond with "Yes," "No," or "I don't know." We anticipated that because of the broader opportunities for undetected cheating online, people would tend to choose "Yes." This did not turn out to be the case. In both groups, about half of the respondents chose "I don't know." It appears this area will benefit from further investigation.

AN OUNCE OF PREVENTION . . .

One of the most difficult parts of getting a handle on breaches in academic integrity is proving them. While plagiarism detection programs like Turnitin are a help with some acts of plagiarism, they do not help with other types of cheating or with authentication issues. This is a case where Benjamin Franklin's proverb from the 18th-century observing the relative ease of prevention over cure is still powerful in the 21st century. Institutions of higher education have taken several steps to deal with cheating and continue to look for new ways. We will discuss some of the more popular approaches.

Academic Integrity Policies and Practices

Most if not all schools have developed policies to make their expectations about academic conduct clear. In general, these policies explain the types of infractions, the possible penalties, the procedures, and the appeals process. Several of these policies were reviewed. Some go into more detail than others. Eberly College of Science at Penn State University spells out three levels of infractions: three minor (e.g., copy a sentence or two), six moderate (e.g., submits the same assignment as someone else), and eleven major (e.g., pose as someone

else, steal an exam) (Academic Integrity Policy–Eberly College of Science, n.d.). Sanctions range from a minimum of reduced points on an assignment for a minor infraction at Eberly to a deferred suspension (Academic Integrity Policy–Northeastern University, 2012). Empire State College includes a letter of reprimand which may or may not remain in the student’s file until graduation depending on the severity of the infraction (SUNY Empire State College–Breaches of Academic Integrity Quiz, n.d.). Maximum sanctions can range up to expulsion.

Faculty and student responsibilities are often spelled out as well. Faculty are typically required to explain their academic integrity standards to the class and include a statement on the syllabus. They may also include a statement on each assignment or exam and possibly require students to sign it. Students are responsible for clarifying any uncertainty they may have about a proposed behavior with the instructor.

The International Center for Academic Integrity at Clemson University (ICAI) promotes academic integrity in higher education. It is an informative resource for many materials and events (ICAI–Educational Resources, n.d.). There is a list of links to schools with academic integrity policies and honor codes as well sample syllabi and academic integrity forms. In addition, there are classroom resources such as handouts and posters.

Honor Codes

ICAI has developed a description of the stages through which institutions go in developing standards for academic integrity (ICAI–Educational Resources, n.d.). In stage one, the school has no academic integrity policy; the second stage represents the early stages of implementing a policy; in the third stage, there is a well-developed and generally accepted policy and procedures. The final stage involves the adoption of an honor code.

A standard definition of an honor code (Melendez, 1985) requires it to include at least one of the following:

1. written pledge by students of honesty in their work;
2. students comprise the majority of the members of the judiciary body;
3. examinations that are not proctored; and
4. student obligation to report cheating of others.

Several schools and links to their honor codes are provided on the ICAI website (ICAI–Educational Resources, n.d.). The Stanford University Honor Code (“Honor Code | Student Affairs,” n.d.), for example, expects that students will not participate or aid in acts of academic dishonesty and participate actively in supporting academic integrity. Faculty will not proctor exams or establish other unusual conditions to control dishonesty. They will work with students for optimal conditions in support of the honor code.

Evidence indicates that there is less cheating on campuses where there is an honor code (McCabe & Trevino, 1993, 1996). It is interesting to note that following the recent cheating scandal at Harvard, the idea of adopting an honor code was considered (Schworm, 2013).

However, other factors come into play in the success of honor codes. Historically, traditional honor codes were found to be most effective in small, private colleges (McCabe & Pavela, 2000). The environment is different in large, public institutions. Another significant factor is the distaste students have for reporting on their peers (McCabe, Trevino, & Butterfield, 2001). Some campuses have had difficulty with their honor codes because of student resistance to their reporting responsibility. As a result, modified honor codes have developed. These codes work around the reporting requirement as well as the requirement for unproctored tests. However, the need for strong student engagement is recognized. Most maintain a student judiciary as well as a strong student presence in promoting academic integrity (McCabe, 2005).

Student Involvement

The success of both honor codes and modified honor codes rests on strong student involvement. It would be difficult, in fact, to overstate the influence of peer behavior on our students. While penalties for academic dishonesty are important, social learning theory indicates that peer behavior is more significant than the threat of punishment in determining the acceptance of deviant behavior (Michaels & Miethe, 1989). Investigations into contextual factors in cheating support this. McCabe and Trevino (1993) conducted a broad study of over 6,000 students in 31 institutions of higher education. The contextual factors they studied include the presence of an honor code, student understanding of the school's academic integrity policies, the perceived certainty that cheaters will be reported, the perception of a severe penalty, and peer cheating behavior. The latter turned out to be the most significant factor.

In a peer culture in which students are engaged in cheating, it is harder for principles of integrity to take root. Anything that can be done to put students in the role of supporting academic integrity can be beneficial. The University of California San Diego has made serious strides toward doing this. A student organization called UCSD AIM (Academic Integrity Matters) promotes academic integrity on campus (UCSD AIM >> Events, n.d.). They give awards, hold contests, run a high school outreach program, write a newsletter, provide videos, and more. Recently they circulated a petition asking faculty to provide more information on academic integrity at UCSD. Students at UCSD can become even more involved as an *Academic Integrity Peer Educator*. Peer educators receive special training and work several hours per week with the Academic Integrity Office. Among other things, they participate in the delivery of the institution's

Academic Integrity Seminar, create and make academic integrity presentations of their own, and work with students who have been accused of policy violations.

Even smaller ways of involving students can be effective. Shu, Gino, and Bazerman (2011) conducted a study of one hundred and forty individuals separated into three groups. One group did not have an honor code statement. The second group was asked to read an honor code statement while the third group was required to read and sign the statement. Results supported the effectiveness of having a code; the least honesty was found in the group with no code. There was also an interesting difference between the remaining groups with the group that both read and signed the statement showing the most honesty. Some schools apply this understanding. Upon matriculation, students at Princeton sign an honor code and write an essay confirming their adherence to the code. Then, at each examination, they sign a pledge that reaffirms their commitment (FAQ—Princeton University Honor Committee, 2013).

Helping Students Understand

The current generation of college students barely remembers a time when information wasn't a click away. Since copying and pasting has become so easy, plagiarism has exploded in college classrooms. While some students take advantage of this to make their lives easier, in other cases it may be unintentional. Moreover, some assignments require collaboration and this may add to the confusion. They may not be aware that they are engaging in dishonest behavior.

One group for whom this is especially likely is our international students. According to the Institute of International Education and their 2012 Open Doors Report (Open Doors, 2013), international student enrollment in the United States increased 6% in 2011-12 to a record high of 764,495 international students. China, India, South Korea, Saudi Arabia, and Canada comprise the top five countries of origin making up for 56% of all international students in the United States. International students are usually highly motivated and eager to experience American culture and higher education. However, besides the apparent difference of language and cultural attitudes, students many times are not aware of different standards of intellectual property and academic integrity.

American society was built on the shoulders of immigrants who worked hard to make a better life for themselves and their families while striving for the American dream. Their ethical values came with them to their new country where in addition they adopted the American virtue of individualism. According to Geerte Hofstede and his cultural dimensions (United States—Geert Hofstede, n.d.), Americans score very high in terms of individualism. We value recognition for our individual accomplishments and have an "I" rather than a "we" perspective. Australia, Germany, and Canada share this individualist attitude as well. On the other hand, according to Hofstede, collectivism rather than individualism is followed in many Eastern cultures. Using the words of an expert verbatim is considered to

be a sign of honor and respect. In American culture however, unless attribution is given to the author, this act is known as plagiarism and has serious consequences.

Some of the approaches that may be used to help students include engaging them in ethical dialogue, academic integrity tutorials, and citation tools. An interesting resource comes from The Academic Integrity Seminar (Pavela, n.d.). It provides resources for concerned teachers including 21 questions that stimulate ethical dialogue and some sample student responses. The questions elicit discussion on topics such as the primary aim of education, the possibility of a universal statement of human rights, qualities you value in your friends, and more.

Faculty may also request that students complete tutorials on academic integrity. Some take the form of simulations that engage the student by helping them deal with possible integrity conflicts through their identification with the students in the tutorial. Here are some examples recommended by ICAI:

- Ryerson University Academic Integrity Tutorial (Episodes and Quizzes—Academic Integrity—Ryerson University, n.d.); and
- Georgetown University Academic Integrity Tutorial (Joining the Conversation: Scholarly Research and Academic Integrity, n.d.)

And here are some that have been peer reviewed at MERLOT, the Multimedia Educational Resource for Learning and Online Teaching (MERLOT Learning Materials—Search Results for Academic Integrity, n.d.)

- VAIL Tutorial—Virtual Academic Integrity Laboratory (VAIL—Virtual Academic Integrity Laboratory, n.d.)
- Plagiarism and Academic Integrity at Rutgers University (Plagiarism & Academic Integrity at Rutgers University, n.d.) <http://www.scc.rutgers.edu/douglass/sal/plagiarism/intro.html>

Still other students may not attribute the material they submit because they find the process of citation to be onerous. These students would benefit from training in how to attribute their materials. For these students, familiarity with citation tools can make a difference. Some of the most popular citation tools at this time are The Citation Machine, EasyBib, and Zotero. The latter is a full-service tool. Once the student provides the information about a resource into its database, Zotero will insert in-text citations with the click of a mouse and a complete, formatted bibliography with another click.

Technology in Support of Integrity in Online Courses

Technology has undoubtedly increased the amount of academic dishonesty. It is also showing promise for detecting and, thereby, reducing it. In the area of plagiarism, Turnitin can be used to detect unoriginal content, but it can also be used to point this out to the student so the student can become aware of the issues and make corrections. Other ongoing research might lead to tools that

would identify a writer's style by analyzing the vocabulary choices a writer makes (Young, 2013).

The problem of authenticating the student has special importance in the online world for both standard online courses and MOOCs. A variety of different approaches are being considered. Biometric tools have become more common. Electronic fingerprinting based on a writer's typing style (rhythm, time on keys) could be combined with facial recognition software to identify the person taking the test or submitting the assignment. Incidents such as the one at Great Neck High School along with the growth of online education have brought the authentication of students in testing situations to the fore. Students could be required to take tests at an authorized testing center. However, a new field of remote proctoring is developing. In one approach, remote proctors watch a live 360-degree view of the test-taker. In a different type of remote proctoring, students are recorded and watched later at a rapid speed. Since MOOCs are beginning to play a role in credit-bearing institutions, the prevalence of cheating in MOOCs has raised concerns. Coursera, one of the major MOOC providers, recently signed an agreement with Proctor U, a remote proctoring company, to proctor some of their MOOCs (Eisenberg, 2013). Students will be charged \$60–\$90 for this service.

These are just a few of the current approaches and it seems reasonable to expect that with the help of technology these will improve and others will develop.

FINDING PROOF

Just as technology has made cheating/plagiarism easier, it has also aided in detection.

Since students ordinarily use Google to find answers, faculty can search Google to determine if a selection or parts thereof was taken from an online source without proper citation. Google is free, quick, easy to use, and easily accessible. Therefore, Google is a good place to begin to decide whether suspicious results require further investigation (Bailey, 2010).

In terms of science and engineering, Google can be used to download entire solution manuals used for solving homework problems. These solutions even include the mathematical steps leading to the answer. Students also collaborate using IM, Facebook, and Google Docs as well as other Web 2.0 tools. To address the problem, a physics professor from MIT added a detection system to identify unusual behavior patterns when students were doing online assessments. If students took a very short period of time to answer several complicated problems correctly, this action was flagged for cheating. Since it is not humanly possible to answer all the questions accurately in such a short period of time, the professor concluded that the answers were already prepared and originated from somewhere else (Young, 2010).

Trevor Howard, a professor of materials engineering at California Polytechnic State University at San Luis Obispo, has studied cheating in engineering. In

surveys he conducted with students he found that students viewed bringing a cheat sheet to an exam as cheating whereas bringing a graphing calculator with equations already stored on it was not viewed as cheating.

He goes on to explain this attitude or judgment as a technological detachment phenomenon in which a student does not feel culpable for an action if technology is between the student and the action. That attitude is the basis for students not considering downloading homework answers as being cheating. CourseHero, which has the reputation of being the Napster of homework sites, is one of many homework sites available online. In addition, Course Hero has a group page on Facebook (Young, 2010). Another site called Cramster specializes in solutions to textbook questions in science and engineering and boasts answers from 77 physics textbooks (Gabriel, 2010).

Many institutions subscribe to Turnitin, a plagiarism detection software. Students or faculty can submit papers to Turnitin where the submission is compared with the large collection of webpages, library databases, and student papers. The software then reveals the matches and the percentage thereof. When students are required to do this before submitting a paper to their instructor, they know immediately where they stand in terms of copying/pasting material that is not their own without attribution. Turnitin is also included in online course management systems (Turnitin–Overview, n.d.).

Before the existence of technology, faculty relied primarily on traditional methods of plagiarism detection. This involved simply identifying an inconsistency in the quality of a student's writing compared with prior submissions. If all of a sudden a student submits a paper that is superior and not at all consistent with previous work, an instructor begins to question originality.

ENFORCEMENT

Many faculty are reluctant to report possible cheating incidents unless there is a smoking gun. When cheating has been suspected, faculty members at campuses such as Michigan State, George State, and The College of Saint Rose require a preponderance of evidence (Evidence and Academic Dishonesty, n.d.).

According to Georgia State, a preponderance of evidence is defined as “that evidence that indicates that academic dishonesty occurred produces a stronger impression and is more convincing as to its truth when weighed against opposing evidence, then academic dishonesty has been proved. In other words, the evidence does not have to be enough to free the mind from a reasonable doubt but must be sufficient to incline a reasonable and impartial mind to one side of the issue rather than to the other. Evidence as used in this statement can be any observation, admission, statement, or document which would either directly or circumstantially indicate that academic dishonesty has occurred” (Section 409–Policy on Academic Honesty, n.d.).

The College of Saint Rose says that a “faculty member must have some basis for bringing an allegation—an eyewitness account, excessive similarity between papers or exams, faculty reports of dual submission, undocumented source materials, or some written documentation (e.g., e-mails, notes, letters, report forms) of an observation or student admission of academic dishonesty. There is, however, no need to collect multiple pieces of evidence—one piece of documentation is sufficient to count as a ‘preponderance of evidence’” (Evidence and Academic Dishonesty, n.d.).

When faculty members have sufficient proof of academic dishonesty, they can proceed in any of the following ways:

- ignore the situation;
- confront the student with the evidence and follow the institution’s policy; and
- confront the student and handle it in his/her own way.

If an instructor has proof of cheating, ethically speaking it is his/her responsibility to pursue the breach of academic integrity and not turn his/her back on it. However, some instructors may be reluctant to pursue the matter, especially those who are untenured. Those students who were caught cheating may take retribution and rate the instructor very low on instructor evaluations. This situation happened to an NYU professor.

Through Turnitin and blatant sharing of information among students, the computer science professor at the Stern School discovered many cases of cheating. He sent an e-mail to the entire class asking those who had cheated to turn themselves in or he was going to report the incident to the dean. By the end of the semester, 22 of the 108 students came forward and admitted to cheating. Accordingly, he gave those students poor grades. When it came time to fill out teacher evaluations, the students criticized him, rating him lower than usual resulting in his receiving the lowest annual salary increase he had ever received (Bhasin, 2011).

His attitude after this debacle is that he will not report cheating incidents in the future as he is the one ultimately paying the price. However, he will use more assignments that make it difficult to cheat and more in-class presentations using public data (Bhasin, 2011).

The Stern School at NYU did have a Code of Ethical Conduct which prohibits plagiarism, misrepresentation, and falsification of data. Punishment is handled on a case-by-case basis and can include a note on the student’s transcript. This note will usually disqualify students from admission to graduate schools and desired employment. Therefore, even though punishment is established, faculty may not enforce the policy due to possible sanctions (Lavalle, 2011).

FACULTY AND STUDENT ATTITUDES

As we’ve seen, the success of an academic integrity policy on campus is dependent on its support by both faculty and students. In a student culture where

cheating is the norm, it will be hard for principles of academic integrity to take root. Faculty buy-in would seem to be assured, but the challenges of detecting infractions, proving them, and taking action can be discouraging. Success in this process can even become a threat to a young faculty member's job.

The authors were interested in learning about the perceptions of faculty and students to issues regarding academic integrity. A survey was distributed by e-mail to both faculty and students. They were invited to respond anonymously. Responses were received from 113 faculty and 171 students. The surveys were kept short with nine questions common to both surveys, four faculty-specific questions added to the faculty survey and two student-specific questions added to their survey.

Survey Questions

We were interested in comparing the answers of faculty and students regarding the number and types of students and forms of cheating as well as their feelings about cheating and any suggestions they may have for reducing it. These are the nine questions common to both surveys:

1. What forms of cheating do you feel are more common?
2. What percentage of your students/classmates do you believe cheat?
3. Who is more likely to cheat—honors or non-honors students?
4. Do you believe that cheating is more common in online courses?
5. What percent of the students who cheat do you estimate get away with it?
6. What is your personal feeling about cheating?
7. Please share any suggestions you may have to reduce cheating.
8. Why do you think people cheat?
9. Do you believe cheating hurts the student who is cheated from? If so, how?

Various factors may make it difficult for faculty to report incidents of academic dishonesty. To explore how faculty made these decisions, we included these questions:

1. How have you handled cheating incidents?
2. Did you find your approach satisfactory? If not, how did or would you modify it?
3. If you report, what criteria influence your decision?
4. What concerns do you have about the repercussions of reporting cheating incidents?

Since students tend to identify with their peers, some issues can be especially difficult for them. These questions were added to the student survey:

1. Did you ever feel pressured to provide answers to your classmates?
2. Would you report a fellow student who cheated?

Comparison of Student and Faculty Responses

Percentage of Students Who Cheat

As seen in Table 3, the largest portion of both faculty and student respondents indicated that acts of cheating involved (only) 1-24% of the students. This is in contrast to the higher proportions of cheaters reported from the literature earlier in this article. While not necessarily significant, it is also interesting to note that 10% of the student respondents felt that no students cheated.

Types of Cheating

Another question asked was about the perceived most frequent types of cheating. As seen in Table 3, nine types of cheating were presented ranging in severity from copying part of an assignment to paying someone to write a paper. Over half of both the faculty and students chose minor acts of copying from an assignment (53% of the faculty and 71% of the students) or use of uncited portions of information (65% of the faculty and 50% of the students) as the most common forms. It is interesting to note that fewer students perceived lesser acts of plagiarism as violations of academic integrity than did faculty. This supports anecdotal evidence that some of today's students, used to easy access to information on the Internet, do not realize when they are plagiarizing. Though the numbers are small, it is also interesting to note that students were more likely than faculty to believe other students would pay someone else to do their work—either take a test or write a paper.

The next two questions explored perceptions of cheating among sub-groups of students.

Table 3. Percentage of Students Who Cheat

What percentage of your students/ classmates do you believe cheat?	Faculty % Student %	
	Faculty %	Student %
0%	4	10
1-24%	74	50
25-49%	14	27
50-74%	5	9
75-99%	2	2
100%	0	1

Cheating in Honors vs. Non-Honors Students

At one time, it was thought that more cheating occurred among students who struggled with academic success. However, as seen in Table 4, among the respondents who had an opinion, the majority felt there was no clear winner. This is supported by the incidents mentioned above at elite institutions such as Harvard and the Air Force Academy.

Cheating in Traditional vs. Online Courses

As indicated earlier in this article, the temptation to cheat is intensified in courses taken online. We were interested to see if faculty and students perceived this similarly. As seen in Table 5, while almost half of the respondents had no opinion on this, of the ones who did, faculty tended to think cheating was more common in online classes than in traditional classes while students were less sure.

Table 4. Comparison of Honors vs. Non-Honors Students

Who is more likely to cheat— honors or non-honors students?		
	Faculty %	Student %
Honors	4	9
Non-honors	14	14
Both equally	40	54
I don't know	42	23

Table 5. Cheating in Traditional vs. Online Courses

Do you believe that cheating is more common in online courses?		
	Faculty %	Student %
Yes	38	29
No	13	22
I don't know	48	50

Detection of Cheating

We know that the reported incidence of cheating is far larger than the number we can detect and prove, so we wanted to learn what percentage of the cheaters our respondents believe get away with it. A comparison of the results of both studies in Table 6 shows that students were more likely than faculty to perceive that cheaters get away with it. More than half of the faculty felt that fewer than half of the cheaters go undetected. The student responses were distributed more evenly over the possible choices, but more than half indicated that more than half of the cheaters escape detection.

The authors felt that three of the questions addressed in both surveys were important enough to be open-ended: Please share any suggestions you may have to reduce cheating; Why do you think people cheat?; Do you believe cheating hurts the student who is cheated from? If so, how?

Suggestions to Reduce Cheating

Since detection of cheating is a universal issue for faculty concern, this question strove to tap the wisdom of the respondents. Responses were loosely categorized into eight topics: design of tests and assignments, discuss integrity and/or consequences with the students, the testing environment, mandatory student training, prevention, plagiarism detection, security of the test document, and other.

The students had far fewer suggestions than the faculty. There were 101 suggestions from 113 faculty respondents but only 51 suggestions from 171 student respondents. Table 7 summarizes the percent of responses from both faculty and students on each topic. Both groups showed substantial interest in making sure students understood their responsibilities and the consequences of ignoring them as well as the testing environment.

Table 6. Getting Away with Cheating

What percent of the students who cheat do you estimate get away with it?		
	Faculty %	Student %
0%	2	4
1-24%	42	25
25-49%	20	15
50-74%	19	26
75-99%	16	27
100%	1	4

Table 7. Suggestions to Reduce Cheating

Please share any suggestions you may have to reduce cheating.

Categories	Percent of faculty responses	Percent of student responses
1. Design of tests and assignments	25	14
2. Discuss integrity, consequences	25	20
3. Testing environment	23	26
4. Prevention	8	10
5. Mandatory student training	4	0
6. Plagiarism detection (Turnitin)	4	1
7. Test security	4	1
8. Other	7	28

Faculty comments about assignments indicated that assignments should be varied, creative, and open-ended to require thinking. Here's a sample: "Assignments should be specific to the course and very varied, making it more difficult for students to cheat"; "The assignment tasks and exam questions must be creative and require the students to demonstrate their knowledge of the material. Answers should not be available by a simple Google search"; "Don't always use what is in the textbook or instructor resources for assignments." They also recommended that assignments be "scaffolded." The teacher should review each stage and make suggestions before the next stage is submitted. Students additionally suggested that teachers should be stricter about requiring students to cite their sources and should leave more time for assignments and more review sessions.

Suggestions about exams were similar to those for assignments but faculty added giving impromptu exams, not making one test or paper worth a large percentage of the grade, open book tests, multiple versions of tests, and scrambling the questions. One student also suggested open book tests.

In the second category, several responses from both groups dealt with helping students understand integrity and how it's in their best interest. Students also felt faculty should motivate students to learn by explaining why their course material is important. Faculty should explain it clearly and thoroughly at the beginning of the course, and then repeat and remind students regularly. One faculty member referenced a "Rule of Three" which says that faculty should remind students at least three times during the course—at the beginning of the course, on the syllabus, and at exam time.

Several students stressed the need for consequences to be meaningful and enforced. One student felt “the punishment should be worse than the crime.” Another also supported “major consequences.” One felt second time offenders should be expelled. Another, also in favor of expulsion, said “I think it is important to penalize cheaters by expelling them from returning to school. I DO NOT believe honest students should be penalized.” And another with strong feelings, “Make sure teachers have a backbone and actually penalize students caught cheating.”

Both teachers and students had several suggestions about the testing environment. There should be sufficient space between students; the Internet should not be available; drinks should not be permitted; no hats, jackets, or drapy [sic] clothing; no one leaves the room until the test is finished. In terms of proctoring they felt that the teacher should walk around the room regularly and there should be more than one proctor. Finally, there was agreement that use of electronic devices should be prohibited.

There were some interesting suggestions regarding preventing this behavior. Both groups felt it was important for the student to have been taught responsibility, integrity, and pride in one’s own work before they get to college. Students wanted professors to teach the material thoroughly and allot sufficient time to help students. Time management was mentioned by several respondents; one student suggested a finals week to allow tests to be better dispersed. A proactive faculty member suggested that teachers “Identify ‘problem’ and/or ‘at risk’ students at the very beginning of the semester. Set them up with student tutors (who will receive extra credit for their time).” Another theme was workshops that build students’ self-esteem.

A thought-provoking idea came from Tim Mante (Mante, 2013), a faculty member in the field of criminal justice, who proposed the following:

Personal integrity and the reputation of the individual is absolutely critical in this field and I teach that to my students. I have considered offering an extra exam in my course (perhaps second test of semester), and encouraging students to cheat on the exam in ANY and ALL ways they can (I am setting them up for learning). On the class day following the exam, I want to randomly assign a failing grade to each student regardless of how they actually did on the test. Of course they will protest and THAT IS THE POINT! The in class discussion is that they expect ME to be honest and ethical in the grading of their exams. They will understand that in all future exams, I expect them to do their work. Of course I will explain that this cheating exam will NOT count in this course, but I am sure that they will learn that cheating is not OK, and that all of us must work at our personal integrity as it is paramount to our reputation, especially in the Criminal Justice field.

Some respondents were discouraged. About 15% of the student responses and 6% of the faculty responses suggested that there would really not be any way to curb cheating. They also pointed out, as did this article above, that cheating

goes well beyond the academic world. One student commented, “. . . as you look into the real world, cheating is everywhere; it does not seem to be prevented or stopped.”

Personal Feelings About Cheating

When asked for their personal feeling about cheating, most of both groups had strong feelings. Answers such as “Its always wrong,” “Cheating is never acceptable,” “Just don’t do it,” and one very vigorous “I abhor it!!!” were common. Another student explained how they had been hurt by cheating,

it has harmed me and i am strongly against it. i feel that others frequently resort to it and it makes me resentful and angry. it has caused me to be afraid, as I was once threatened when asked to provide questions and answers from an exam. i had to drop the course because the professor did not want to resolve the issue, and have never forgotten the incident. it changed my direction in college—I was so turned off by this that i changed my major.

There were, however, some interesting exceptions. One student said “doesn’t bother me.” Another student saw it as collaboration—a behavior that’s valued in the business world.

One faculty member reflected on a theme expressed earlier—the lack of integrity in the larger world, “I think it is a sad reflection of the society we live in. Students see high profile figures getting away with violations and think it is OK. . . .” More than one faculty member were surprised at the student’s lack of understanding about plagiarism, “I believe most students do not realize they are plagiarizing. I’m shocked at their reactions when confronted.” Another acknowledged the difficulty of proof, “It must not be tolerated. I do, however, require substantial proof before I’ll accuse a student of cheating.”

Two Additional Open-Ended Questions

There were two additional open-ended questions asked of both groups. The first was about the person being cheated from. The majority of both faculty and students felt that the person who was cheated from was hurt because they did the work and someone else got the credit. However, faculty agreed that if the cheating was caught, both parties should be penalized.

The second question explored why people cheat. There was the most agreement on this question. Common themes of responses by both groups were pressure to succeed, laziness, procrastination, lack of respect for learning.

Finally, with regard to the questions asked to both groups, this eye-opening comment by a student may be worth your attention:

The #1 form of academic dishonesty I have seen on this campus is the use of Adderall/Ritalin as a study an performance “enhancer” for students to which it has not been prescribed. I can’t speak for most non-honors students

but in all of the honors classes I have taken, there has been the illegal sale of Ritalin among students and the use of it before finals and tests. This is my number one complaint. Why does any student feel accomplished taking a manufactured drug to succeed rather than trusting their body and their intellectual promise to work hard through their work? I don't know but in my opinion this is a big problem on campus that goes "unspoken." To my surprise these have been some of the top students I have known and some were in very high regards with the university/ professors and it is sad to know they got there by using a drug improperly like a fiend.

Peer Relationships

As we've seen, peer relationships complicate efforts to enforce academic integrity policies. Two student-only questions were included in the student survey. Students were asked if they had felt pressured to help their classmates during tests. Table 8 shows that over three-fourths of the students had never felt pressured to provide a classmate with an answer.

Student loyalty to other students can stand in the way of enforcing academic integrity policies. Students were asked if they would report a fellow student. Table 9 supports the loyalty students have for each other. Fewer than one-quarter

Table 8. Pressure from Peers

Did you ever feel pressured to provide answers to your classmates?		
	Number of responses	Percent
Yes	39	23%
No	132	77%

Table 9. Reporting a Fellow Student

Would you report a fellow student who cheated?		
	Number of responses	Percent
Yes	39	23%
No	64	37%
Maybe	68	40%

of the respondents (23%) indicated firmly that they would report another student while 37% would not. The remaining respondents were undecided.

Proof and Enforcement

To explore the issues faculty have with proving and enforcing penalties for cheating, four questions were addressed only to faculty. When asked how they have handled cheating incidents, responses ranged from a warning to course failure. Most of the faculty were satisfied with the results of their actions. Faculty were asked to choose which possible criteria determine if they reported a student suspected of cheating. As seen in Table 10, they were given five possible choice and could choose all that were appropriate. The most common choices were major offenses, repeat offenders, and substantial proof, with the latter being the most frequently chosen criteria.

The final question addressed faculty concerns about reporting cheating. Faculty were again able to choose all that were appropriate. Table 11 shows the results. Most faculty indicated that they had no concerns about taking action. One-quarter of the respondents were concerned about harassment by the accused student.

Finally, we'd like to share one of the more creative (though not necessarily practical) student suggestions. It would seem to be the most efficient way to prevent cheating and to ensure that all attending students are interested in learning—"Give everyone their diploma on the first day. Those not interested in learning will go home."

Survey Discussion

Survey results indicate that both the faculty and student respondents are concerned about academic integrity and both would like to find a way to enforce it. Several concerned students commented on the need for significant consequences for acts of dishonesty and for their consistent implementation. They agree that

Table 10. Faculty Criteria for Reporting Offenses

If you report, what criteria influence your decision?		
	Number	Percent
No criteria; I report all offenses	11	10%
Only major offenses	41	37%
Repeat offenders	39	35%
Substantial proof	59	54%
Other	6	5%

Table 11. Faculty Concerns about Reporting Academic Dishonesty

What concerns do you have about the repercussions of reporting cheating incidents?		
	Number	Percent
No concerns	66	58%
Effect on student evaluations	18	16%
Effect on course enrollment	7	6%
Harassment by the accused student	29	26%
Creating anxiety in other students	12	11%
Other	15	13%

faculty should be as vigilant as possible about catching cheating in assignments and exams. Faculty offered several suggestions for creating assignments and exams that thwart cheating. Both groups are also concerned about controlling cheating in the testing environment. Common suggestions were sufficient space between students, prohibition of electronic devices, and multiple proctors.

There were, in addition, a few surprises. One related to the number of students who cheat and another to their performance level in academic subjects. While most of the literature suggests that a relatively high (50-92%) percentage of students cheat, these respondents did not seem to agree. The majority of both groups indicated that only 1-24% of students cheat. The authors wonder if this reflects lack of awareness. On the subject of the relationship between academic performance and cheating, typically, it has been believed that most cheating is engaged in by students who are struggling in their studies. In our surveys, the largest percent of both faculty and students indicate that cheating was equally common among low- and high-performing students.

Finally, while both groups were interested in curtailing acts of academic dishonesty, unfortunately there were also members of both groups that had doubts about the success of those efforts given the extent of cheating throughout society.

RECOMMENDATIONS

Throughout this article we have discussed the disheartening fact that academic dishonesty is on the increase at all levels of education. Today, students and more recently parents, teachers, and administrators are involved in unethical efforts to promote their children, students, and school districts. The breaches committed in our larger external environment serve to reinforce the notion that everyone is

doing it so it is acceptable to take shortcuts and do whatever is necessary to get ahead. If caught, a simple apology will serve to vindicate the action. The underlying ideology is that the ends justify the means.

Though we cannot change the bigger picture, we have a substantial battle to take on by simply focusing on how to preserve truth and honesty in academia through academic integrity. We need to concentrate on the means rather than the ends.

Here are some recommendations that the authors suggest as a result of their research and survey results.

Involve the Students

Peer pressure has a powerful influence on student behavior. Students are many times more likely to listen to other students than to their instructors. Involving students in any way can make a difference. Students on judiciary boards and in other student organizations were mentioned above. It was also mentioned that the student government associations of the separate schools of Columbia University are considering having one honor code instead of separate ones. Getting a student government association on board to support an academic integrity initiative is certainly favorable and will most likely be more successful than a plan instituted top-down by administrators and faculty. Students serve as very effective ambassadors.

Consider Instituting an Honor Code

Several instances of honor code violations were reported in this article. However, also reported was the fact that fewer incidences of cheating were reported when an honor code exists.

Provide Instruction

College faculty should not take for granted that students have had prior training in citing references and are aware of academic integrity. Some students do commit acts of unintentional plagiarism through ignorance. International students, as was mentioned in the article, have cultural incongruities regarding academic integrity that need to be addressed. Respondents to both the faculty and student surveys recommended providing students with additional discussion of both what academic dishonesty entails and how to avoid it. Instructional workshops should be offered to inform students—all students not just international—on what constitutes plagiarism and how to avoid it. Eliminating confusion is a step toward eliminating academic dishonesty. Since group work is prevalent in today's classrooms, students need to be able to distinguish when collaboration is appropriate. Technology may have increased the propensity for plagiarism, but it has also made attribution easier through web-based programs—however, only if students are aware of them.

Establish Consistency

At some institutions, the punishment for violations of academy integrity varies from class to class. As was mentioned in this article, some instructors view this as a serious infraction and recommend very stringent punishment. On the other hand, other instructors may turn their backs on pursuing questionable occurrences due to the time and effort and possible retaliation that they may suffer when whistleblowing the violation. These various actions send mixed messages to students when one instructor almost condones the action while another fails the student in the course. Though academic freedom must be preserved, some consistent system should be established to minimize or eliminate student confusion from class to class and instructor to instructor.

Provide Reinforcement

A standard element on most course syllabi is either an instructor's statement or an institutional standard statement regarding the policy on academic honesty. Faculty members routinely review this with students when the syllabus is distributed on the first day of class, but many times do not mention it again. Faculty respondents to the survey recommended that the professor's academic integrity policy for the class be repeated later in the course. In order for students to get the message and understand its importance, faculty need to reiterate their policy throughout the semester. When assigning homework, papers, or projects, and right before exams would be opportune times to remind students of the policy and the consequences of violation.

Redesign Assessment Activities

In this article we discussed the emphasis on standardized testing in high school. In college, assessment activities should not just be limited to exams. Students are assigned homework, papers, projects—both individual and group. Respondents to the faculty survey recommended breaking up a large assignment into parts and establishing a timeline of intermediate deadlines. This practice will help the procrastinators manage their time well as they cannot wait until the last minute to submit their work. When the clock is ticking and the stress is mounting, academic dishonesty becomes a welcome solution for the procrastinators. Using creative individual work such as involving students in writing blogs, wikis, and journals can also combat cheating.

Emphasize Implications of Cheating Beyond School

Cheating is many times viewed as a victimless crime. A cheater mentality or rationalization is that I am not hurting anyone by copying/pasting this passage or getting some test answers from another student. After some success, the practice may continue. Students do not consider how these actions—whether committed by

them or by others—will influence them and others later on in their careers or professions. Scenarios need to be explored with students such as the following: An automotive student cheated on the brakes exam and copied homework from other students. The student who cheated is now working at an automotive shop and installing new brakes on your car in anticipation of your family road trip this summer. You should be worried. Even worse would be those who cheat in medical or law school and are diagnosing our health issues, prescribing medication, and representing us in a trial in which the death penalty is involved. Yes, these are extreme cases, but faculty can stress the point that cheating is not a victimless crime and goes beyond the selfishness of the cheater.

Change the Culture

Be proactive. Instead of focusing on preventive measures which assume that students are going to cheat, why not focus on the notion that cheating may not even be a solution considered by students. This recommendation may sound somewhat naive and downright impossible, but it could be explored through a well-thought-out action plan rolled out in stages that emphasizes a campus culture of integrity. Granted, changing attitudes is not easy; but in time change could take place. However, it will take a campus.

REFERENCES

- Academic Integrity Policy—Eberly College of Science. (n.d.). Retrieved June 24, 2013, from <http://science.psu.edu/current-students/Integrity/Policy.html>
- Academic Integrity Policy—Northeastern University. (2012). Retrieved June 24, 2013, from <http://www.northeastern.edu/osccr/academicintegrity/>
- Anderson, J., & Applebome, P. (2011, December 1). On Long Island, SAT cheating was hardly a secret. *The New York Times*. Retrieved from <http://www.nytimes.com/2011/12/02/education/on-long-island-sat-cheating-was-hardly-a-secret.html>
- Bailey, J. (2010, February 9). 5 reasons Google is my primary plagiarism checker. *Plagiarism Today*. Retrieved June 27, 2013, from <http://www.plagiarismtoday.com/2010/02/09/5-reasons-google-is-my-primary-plagiarism-checker/>
- Bhasin, K. (2011, July 20). NYU professor catches 20% of his students cheating, and he's the one who pays for it. *Business Insider*. Retrieved June 27, 2013, from <http://www.businessinsider.com/nyu-professor-class-cheating-2011-7>
- Brown, B. S., Weible, R. J., & Olmosk, K. E. (2010). Business school deans on student academic dishonesty: A survey. *College Student Journal*, 44(2), 299-308.
- Burt, D. (2010, December 1). Cheating confusion persists | Yale Daily News. *Yale Daily News*. Retrieved April 30, 2013, from <http://yaledailynews.com/blog/2010/12/01/cheating-confusion-persists/>
- Carter, C. (2013, March 29). Grand jury indicts 35 in Georgia school cheating scandal. *CNN*. Retrieved October 23, 2013, from <http://www.cnn.com/2013/03/29/us/georgia-cheating-scandal/index.html>

- Cheat at school with your iPOD!* (2007). Retrieved from http://www.youtube.com/watch?v=iUhUEwqZerk&feature=youtube_gdata_player
- Damast, A. (2007, April 30). Duke MBAs fail ethics test. *BusinessWeek: business_schools*. Retrieved from <http://www.businessweek.com/stories/2007-04-30/duke-mbas-fail-ethics-testbusinessweek-business-news-stock-market-and-financial-advice>
- DeSantis, N. (2013a, February 1). Most students in Harvard cheating scandal were forced to withdraw—The Ticker. *The Chronicle of Higher Education*. Retrieved June 27, 2013, from <http://chronicle.com/blogs/ticker/more-than-half-of-students-in-harvard-cheating-scandal-were-forced-to-withdraw/54993>
- DeSantis, N. (2013b, March 26). 2 students at Miami U. are dismissed for tampering with grades—The Ticker. *The Chronicle of Higher Education*. Retrieved June 27, 2013, from http://chronicle.com/blogs/ticker/2-students-at-miami-u-are-dismissed-for-tampering-with-grades/57561?cid=wc&utm_source=wc&utm_medium=en
- DeSantis, N. (2013c, May 30). U. of Oklahoma student faces charges for alleged grade tampering—The Ticker. *The Chronicle of Higher Education*. Retrieved October 23, 2013, from http://chronicle.com/blogs/ticker/u-of-oklahoma-student-faces-charges-for-alleged-grade-tampering/61077?cid=pm&utm_source=pm&utm_medium=en
- Di Meglio, F. (2006, September 23). A crooked path through B-school? *BusinessWeek: business_schools*. Retrieved from <http://www.businessweek.com/stories/2006-09-23/a-crooked-path-through-b-school>
- Eisenberg, A. (2013, March 3). Keeping an eye on online test-takers. *The New York Times*. p. 4(L).
- Episodes and Quizzes—Academic Integrity—Ryerson University. (n.d.). Retrieved June 24, 2013, from <http://www.ryerson.ca/academicintegrity/episodes/index.html>
- Evidence and Academic Dishonesty. (n.d.). *The College of Saint Rose*. Retrieved June 27, 2013, from http://www.strose.edu/academics/academic_integrity/article3086
- FAQ—Princeton University Honor Committee. (2013). *Princeton University*. Retrieved June 21, 2013, from <http://www.princeton.edu/honor/faq/>
- Fleisher, L., & James, W. (2013, April 12). Cheating claims rock Long Island. *Wall Street Journal*. Retrieved from <http://online.wsj.com/article/SB10001424127887324695104578419171762821136.html>
- Gabriel, T. (2010, July 5). To stop cheats, colleges learn their trickery. *The New York Times*. Retrieved from <http://www.nytimes.com/2010/07/06/education/06cheat.html>
- Grijalva, T. C., Nowell, C., & Kerkvliet, J. (2006). Academic honesty and online courses. *College Student Journal*, 40(1), 180-185.
- Haughney, C. (2013, August 10). CNN and Time suspend journalist after admission of plagiarism. *Media Decoder Blog*. Retrieved June 27, 2013, from <http://mediadecoder.blogs.nytimes.com/2012/08/10/time-magazine-to-examine-plagiarism-accusation-against-zakaria/>
- Honor Code | Student Affairs*. (n.d.). Retrieved June 24, 2013, from <http://studentaffairs.stanford.edu/judicialaffairs/policy/honor-code>
- How to cheat in a test using a coke bottle!* (2008). Retrieved from http://www.youtube.com/watch?v=NRgM9-n7K5E&feature=youtube_gdata_player
- How to cheat on a test (Nano iPOD)*. (2013). Retrieved from http://www.youtube.com/watch?v=L1_Q0vhh6S0&feature=youtube_gdata_player
- ICAI—Statistics*. (n.d.). International Center for Academic Integrity. Retrieved June 21, 2013, from <http://www.academicintegrity.org/icai/integrity-3.php>

- ICAI–Educational Resources. (n.d.). Retrieved June 24, 2013, from <http://www.academicintegrity.org/icai/resources-4.php>
- Joining the conversation: Scholarly research and academic integrity*. (n.d.). Georgetown University Library. Retrieved June 27, 2013, from <https://www.library.georgetown.edu/tutorials/academic-integrity>
- Kaminer, A., & Leonard, R. (2013, May 8). At Barnard College, reports of cheating prompt changes. *The New York Times*. Retrieved from <http://www.nytimes.com/2013/05/09/nyregion/at-barnard-college-reports-of-cheating-prompt-changes.html>
- Kolker, R. (2012, September). *Cheating upwards*. NYMag.com. Retrieved October 23, 2013, from <http://nymag.com/news/features/cheating-2012-9/>
- Lavelle, L. (2011, July 18). NYU undergrads accused of plagiarism–*BusinessWeek*. Retrieved June 27, 2013, from http://www.businessweek.com/bschools/blogs/mba_admissions/archives/2011/07/nyu_undergrads_accused_of_plagiarism.html
- Levitz, J. (2013, February 1). *Harvard punishes dozens of students for cheating*. Retrieved October 23, 2013, from <http://online.wsj.com/news/articles/SB10001424127887323926104578278393860397374>
- Mante, T. (2013, January 13). *Faculty survey on academic integrity*–Rockland Community College.
- McCabe, D., & Pavela, G. (2000). SOME GOOD NEWS About ACADEMIC INTEGRITY. *Change*, 33(5), 32.
- McCabe, D. L. (2005). Cheating among college and university students: A North American perspective. *International Journal for Educational Integrity*, 1(1). Retrieved from <http://ojs.ml.unisa.edu.au/index.php/IJEI/article/view/14>
- McCabe, D. L., & Trevino, L. K. (1993). Academic dishonesty: Honor codes and other contextual influences. *The Journal of Higher Education*, 64(5), 522-538. doi: 10.2307/2959991
- McCabe, D. L., Trevino, L. K., & Butterfield, K. D. (2001). Dishonesty in academic environments: The influence of peer reporting requirements. *The Journal of Higher Education*, 72(1), 29-45. doi: 10.2307/2649132
- McCabe, D. L., & Treviño, L. K. (1996). What we know about cheating in college. *Change*, 28, 28-33.
- Melendez, B. (1985). *Honor code study*. Cambridge, MA: Harvard University.
- MERLOT learning materials–Search results for academic integrity*. (n.d.). Retrieved June 26, 2013, from <http://www.merlot.org/merlot/materials.htm?sort.property=relevance&materialType=&keywords=academic+integrity&category=372822&newsearchbutton0.x=30&newsearchbutton0.y=7>
- Michaels, J. W., & Miethe, T. D. (1989). Applying theories of deviance to academic cheating. *Social Science Quarterly (University of Texas Press)*, 70(4), 870-885.
- Mulder, J. T. (2011, May 13). Cheating may delay medical degrees for some upstate students about to graduate. *The Post-Standard* – syracuse.com. Retrieved October 23, 2013, from http://www.syracuse.com/news/index.ssf/2011/05/cheating_may_delay_medical_deg.html
- Mytelka, A. (2013, March 28). Longtime law professor at Towson U. faces plagiarism accusations–The Ticker. *The Chronicle of Higher Education*. Retrieved June 27, 2013, from <http://chronicle.com/blogs/ticker/longtime-law-professor-at-towson-u-faces-plagiarism-accusations/57775>

- New forms of cheating found in college tests | The Jakarta Post. (n.d.). *The Jakarta Post*. Retrieved June 23, 2013, from <http://www.thejakartapost.com/news/2013/06/22/new-forms-cheating-found-college-tests.html>
- Omer, S. (2012, June 7). 78 Air Force Academy cadets accused of cheating on math test. *NBC News*. Retrieved June 27, 2013, from http://usnews.nbcnews.com/_news/2012/06/07/12107246-78-air-force-academy-cadets-accused-of-cheating-on-math
- Open Doors. (2013). *Institute of International Education*. Retrieved June 26, 2013, from <http://www.iie.org/Research-and-Publications/Open-Doors>
- Pappano, L. (2012). The year of the MOOC. *New York Times*, p. 26.
- Pavela, G. (n.d.). *Welcome to the Academic Integrity Seminar*. Retrieved June 26, 2013, from <http://www.academicintegrityseminar.com/Teaching/21Questions.html>
- Pérez-Peña, R. (2012, August 31). Students of Harvard cheating scandal say group work was accepted. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/09/01/education/students-of-harvard-cheating-scandal-say-group-work-was-accepted.html>
- Perry, M. J. (2012, September 12). *CARPE DIEM: Markets in everything: Pay somebody to take your online classes, get an A 99% of the time*. Retrieved June 23, 2013, from <http://mjpperry.blogspot.com/2012/09/markets-in-everything-pay-somebody-to.html>
- Plafke, J. (2010, November 18). *Over 200 students confess after professor uncovers mass cheating on exam*. Retrieved June 27, 2013, from <http://www.geekosystem.com/over-200-students-confess-after-professor-uncovers-mass-cheating/>
- Plagiarism & academic integrity at Rutgers University*. (n.d.). Retrieved June 24, 2013, from <http://www.scc.rutgers.edu/douglass/sal/plagiarism/intro.html>
- Powers, E. (2007, May 10). *Cheating on a different level | Inside higher ed*. Retrieved October 23, 2013, from <http://www.insidehighered.com/news/2007/05/10/cheating>
- Reyes, B. (2012, September 25). *Carleen Basler resigns after admitting to plagiarism*. Retrieved June 27, 2013, from <http://amherststudent.amherst.edu/?q=article/2012/09/25/basler-resigns-after-admitting-plagiarism>
- Schad, C. (2013, January 9). Why the steroid era has made Hall of Fame voters gun-shy. *Bleacher Report*. Retrieved June 27, 2013, from <http://bleacherreport.com/articles/1478077-2013-baseball-hall-of-fame-vote-why-the-steroid-era-has-made-voters-gun-shy>
- Schworm, P. (2013, April 7). Harvard considers adopting honor code for first time—*The Boston Globe*. *BostonGlobe.com*. Retrieved October 23, 2013, from <http://www.bostonglobe.com/metro/2013/04/06/harvard-considers-adopting-honor-code-for-first-time/IE6AXsmybsdgToNcPDuywN/story.html>
- Section 409—Policy on academic honesty*. (n.d.). Georgia State University. Retrieved June 27, 2013, from <http://www2.gsu.edu/~wwwfhh/sec409.html>
- Shellenbarger, S. (2013, May 15). *How could a sweet third-grader just cheat on that school exam?* Retrieved October 23, 2013, from <http://online.wsj.com/news/articles/SB10001424127887324216004578483002751090818>
- Shu, L. L., Gino, F., & Bazerman, M. H. (2011). Dishonest deed, clear conscience: When cheating leads to moral disengagement and motivated forgetting. *Personality and Social Psychology Bulletin*, 37(3), 330-349. doi: 10.1177/0146167211398138
- Sullivan, M. (2013, May 4). Repairing the credibility cracks after Jayson Blair. *The New York Times*. Retrieved from <http://www.nytimes.com/2013/05/05/public-editor/repairing-the-credibility-cracks-after-jayson-blair.html>

- SUNY Empire State College—*Breaches of academic integrity quiz*. (n.d.). Retrieved June 22, 2013, from <http://www.esc.edu/academic-integrity/breaches-academic-integrity/breaches-quiz/>
- Turnitin—Overview. (n.d.). *Turnitin*. Retrieved June 27, 2013, from http://turnitin.com/en_us/features/overview
- UCSD AIM >> *Events*. (n.d.). Retrieved June 25, 2013, from <http://ucsdaim.org/events/>
- United States—*Geert Hofstede*. (n.d.). Retrieved June 24, 2013, from <http://geert-hofstede.com/united-states.html>
- VAIL—Virtual Academic Integrity Laboratory*. (n.d.). Retrieved June 24, 2013, from <http://www-apps.umuc.edu/vailtutor/>
- Watson, G., & Sottile, J. (2010). Cheating in the digital age: Do students cheat more in online courses? *Online Journal of Distance Learning Administration*, 13(1).
- Winerip, M. (2011, August 21). Michelle Rhee eager for spotlight, but not in cheating scandal. *The New York Times*. Retrieved from <http://www.nytimes.com/2011/08/22/education/22winerip.html>
- Wyatt, E. (2006, January 10). Best-selling memoir draws scrutiny. *The New York Times*. Retrieved from <http://www.nytimes.com/2006/01/10/books/10frey.html>
- Yee, V. (2012, September 25). Stuyvesant students describe rationale for cheating. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/09/26/education/stuyvesant-high-school-students-describe-rationale-for-cheating.html>
- Young, J. R. (2010, March 28). High-tech cheating abounds, and professors bear some blame. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/High-Tech-Cheating-on-Homework/64857/>
- Young, J. R. (2013). Online classes see cheating go high tech. *Education Digest*, 78(5), 4-8.

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