

PROMOTING ACADEMIC INTEGRITY IN THE CLASSROOM

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Nationally, there has been a great deal of public attention to issues of academic and professional integrity. High-profile plagiarism cases in the academy and in the journalism profession have attracted extensive media coverage, as has research conducted on other campuses which reveals that many students report academically dishonest behavior. And there has been much discussion about the impact of new technologies on student behavior and on instructor efforts to deter and detect academic dishonesty (for an excellent overview of these national discussions, see Hansen, 2003.) Here at U-M, these issues play out as well. Academic dishonesty cases are frustrating for all involved, taking up precious time that could be focused on teaching, research, and service.

Many faculty, GSIs, administrators and students have asked whether more could be done to address academic integrity on campus. This *Occasional Paper* is intended to inform efforts to address academic integrity at U-M by:

- providing an overview of current research on academic integrity;
- summarizing instructional best practices for promoting academic integrity and deterring and detecting academic dishonesty;
- describing institutional options for promoting academic integrity and for dealing with academic dishonesty;
- linking readers to other resources on academic integrity, particularly the U-M website (<http://www.lib.umich.edu/acadintegrity>) which has a wealth of resources relating to this issue.

Academic Integrity Research

This section provides an overview of some of the key questions that researchers have tried to address in relation to academic integrity. These include: How large a problem is academic dishonesty? Is the problem getting worse? Why do students engage in academically dishonest behavior?

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Scope of the problem

Estimates of academic dishonesty primarily come from surveys of students.¹ These surveys ask students to discuss their own behaviors as well as their beliefs about the behaviors of others. In a comprehensive review of this research, Whitley (1998) examined a set of studies conducted between 1970 and 1996 that included student self-reports of academically dishonest behavior. Table 1 categorizes these studies by the type of behavior they examined and provides the range and mean estimates of the percentage of students reporting each behavior. Perhaps most revealing are the studies that looked at student reports of many types of unethical academic behavior (referred to as “total cheating”) rather than those that focused only on one type of behavior. The mean estimate of self-reported total cheating among these studies was 70%, more than two-thirds of students surveyed. The lesson from Table 1 is clear: while student self-reported behavior varies widely, significant numbers of students across all studies report engaging in some type of academically dishonest behavior.

Table 1: Studies of Student Self-Reports of Academically Dishonest Behavior (Adapted from Whitley, 1998)

Type of Behavior (Self Reports)	Low Estimate (Self Reports)	High Estimate (Self Reports)	Mean Estimate
Total Cheating (N=59)	9%	95%	70.4%
Cheating on Exams (N=76)	4%	82%	43.1%
Cheating on Homework (N=52)	3%	83%	40.9%
Plagiarism (N=49)	3%	98%	47%

N refers to the number of studies reviewed.
% refers to the percentage of students reporting this behavior

Recent trends

Has this problem gotten worse in recent years? While there is limited longitudinal data, research by McCabe and Trevino (1996), replicating a study by Bowers (1964), is instructive. Surveying students from the same nine medium-to-large state universities, they found that student self-reports of cheating on tests and exams increased substantially over 30 years. For example, in 1963, 26% of students from these universities reported copying from another student; this number rose to 52% in 1993. According to McCabe and Trevino, much of this trend was driven by a large increase in the percentage of women students reporting cheating on tests and exams.²

In contrast to test and exam cheating, student reports of plagiarism on written work did not reveal much change across 30 years.³ The main exception involves unauthorized collaboration on assignments requiring individual work. Here the data show a large jump in such behavior, from 11% in 1963 to 49% in 1993. It is possible that this jump reflects an increase in the emphasis on collaborative work that has occurred throughout the educational system, including higher-education environments, and the resulting confusion about when collaboration is allowed (or even encouraged).

Have recent technological advances altered student behavior?

In a study that asked students whether they or their peers engaged in behaviors that could be classified as either conventional or Internet plagiarism, Scanlon and Neumann (2002) found that students report similar rates of “cut-and-paste plagiarism” regardless of the source of the information – conventional hard-copy materials or Web-based information. An open question for the future is whether students will simply substitute one type of cut-and-paste plagiarism for another, or whether, in light of the digital revolution, overall rates of plagiarism will increase.⁴ There are already data demonstrating a marked decline in student usage of conventional academic resources (and a greater reliance on Web-based, non-scholarly material) for their academic work (Davis, 2003).

Factors correlated with academic dishonesty

Why do students engage in academically dishonest acts? Ask anyone associated with higher education and you are likely to get a range of answers. Some will point to financial or parental pressures on students to do well in school. Others will point to a lack of education relating to appropriate scholarly behavior. And still others will point to students who view education not as a value but as a credential to be obtained by any means. In any particular case, a number of forces may be at work.

Researchers have examined an array of hypotheses using variables that group into the following categories:

1. Student demographic and attitudinal variables (age, gender, scholastic ability, family status, financial stress, attitudes toward cheating behavior, feelings of alienation)
2. Classroom context variables (perceived work load, competitiveness, class size, testing environment)
3. Institutional factors (honor codes, explicitness of academic integrity policies, clarity of sanctions)

One consistent finding stands out in the research. Whether students engage in academically dishonest behavior seems to rest in large part on their perceptions of their peers' practices. This relationship held true in several individual studies (McCabe & Trevino, 1993, 1997; McCabe, Trevino, & Butterfield, 2002; Scanlon & Neumann, 2002), which found that students are more likely to report engaging in academically dishonest behavior the more they sense that their peers are engaged in similar behaviors. Whitley's (1998) review of the research comes to similar conclusions. The largest and most consistent finding across studies is that students are more likely to report or engage in academically dishonest behavior when they hold attitudes favorable to cheating and when they perceive that social norms allow cheating.⁵

Since peer behavior and norms of accepted conduct play such a large role in student behavior, the remainder of this paper will focus on actions available to instructors and to institutions to promote academic integrity and address academic dishonesty.

Instructional Best Practices

Faculty and GSIs are crucial to promoting academic integrity. While institutional statements and policies on academic integrity are important, the messages and practices that students experience in the classroom help transform academic integrity from an abstract concept into an on-the-ground reality. Much has been written to provide information and advice to instructors interested in promoting academic integrity (Davis, 1993; Hansen, 2003; Harris, 2002; Howard, 2001; McCabe & Pavela, 2004; National Academy of Sciences, 1994; Student Judicial Affairs, University of California-Davis, 1999). This advice falls into several categories: how to raise academic integrity with students in productive ways, how to structure and sequence assignments, and how to structure and monitor tests and examinations to prevent cheating. Note that many of the strategies detailed below serve dual purposes. Pedagogically they provide additional instruction and guidance to students about the work that is being required of them. Yet these same strategies can serve to deter academic dishonesty or make detection of academic dishonesty more likely.

General issues of academic integrity

Discussing academic integrity with students is an important first step. While admonitions against plagiarism, cheating, and unauthorized collaborative work are certainly important, there is much more that can be done. By raising the topic explicitly with students, instructors signal that academic integrity is an important topic, albeit one that can be confusing and in need of examination and clarification. The following topics are useful for an instructor to consider throughout the term:

1. Be clear about your expectations – both orally and in writing:
 - a. What type of assistance can students seek on class-related work? And from whom?
 - b. What types of assistance will be available from faculty or GSIs?
 - c. Is group work allowed? Under what circumstances?
 - d. Are students allowed to seek help from others (e.g.,

- parents, friends, the Sweetland Writing Center) on their assignments? Does this help need to be documented?
- e. Will previous terms' exams be available for review?
 - f. Can a student revise a paper from another class to fulfill the assignment in your class?
 - g. What type of research documentation do you expect and why?
2. Demonstrate for them your concern with issues of academic integrity and responsible research by discussing what is challenging about doing work in your field:
 - a. What is an original argument?
 - b. What is the boundary between collaboration and individual work?
 - c. What is "common knowledge" in your field?
 - d. What is your own practice for doing research and documenting sources?
 - e. If you are asking students to engage in research as part of their coursework, it is particularly crucial to discuss with them responsible research practices, including, where appropriate, human subject protection and institutional review board (IRB) approval processes.⁶ It is important that students learn how scholars ensure that a given project is based on ethical practices.
 3. Teach/reinforce research and citation skills
 - a. Identify common errors students make in note-taking and research preparation.
 - b. Assign a plagiarism exercise or conduct one in class. Excellent resources for your students include:
 - i. Virtual Academic Integrity Laboratory:
<http://www.umuc.edu/distance/odell/cip/vail/home.html>
 - ii. What is Plagiarism at Indiana University:
<http://education.indiana.edu/~frick/plagiarism/item1.html>
 4. Remind them of your school/college's academic integrity policy. Clarify with them:
 - a. What steps you will take if you suspect cheating or plagiarism has taken place.
 - b. What steps you expect your students to take if they suspect cheating or plagiarism is taking place in your class.

For an extensive example of a conversation to have with students, see Taylor (n.d.). Other useful places to get ideas for the substance of such a conversation include the work of Lipson and Reindl (2003), McCabe and Pavela (2004), Newton (1995), and Steneck (2004).

Written work

Technological changes have added new twists to the age-old problems of plagiarism and cheating, and instructors need to be aware of the types of problems that can emerge. It is crucially important that instructors stay up-to-date on the sources of information that students can draw upon to complete their work. In addition to the overall growth of the Web, there has been an enormous expansion of electronic journals and magazines, online term paper sites (both free and for purchase), and automated language translation sites. For further discussion of some of these topics see Groark, Oblinger, and Choa (2001) and Young (2001).

When assigning written work, consider the following:

1. Rotate assignments, altering key elements or details to prevent recycling of previous students' materials.
2. Create targeted assignments linked to course material specific to your class.
3. Incorporate assignment elements that are difficult to duplicate/fabricate
 - a. Require that data be collected and/or interpreted using a particular method.
 - b. Require that students employ a particular comparison or contrast in their work.
 - c. Build in a client assessment process for any field assignments, such as an evaluation form that clients must fill out or mail back or a procedure for conducting follow-ups with clients to assure quality control and feedback.
4. Sequence or stage major assignments.
 - a. Require detailed paper or project proposals from each student.
 - b. Require annotated bibliographies.
 - c. Require multiple drafts.
5. Clearly specify the types of source materials that students can use and how you expect these to be cited in submitted work.
6. Require assignments to be submitted electronically and on paper (where appropriate).

7. Where appropriate, require that supporting material be turned in along with finished assignments.
8. Incorporate an in-class reflective writing assignment on the day the project is due. Examples include:
 - a. Discuss the most challenging and most rewarding aspects of your project.
 - b. What was the most surprising thing you learned in the course of this project?
 - c. If you had the chance to do it again, what one thing would you have done differently on this project?

For additional strategies regarding written work, see Davis (1993), Ehrlich (2000), Harris (2002), and Whitley and Keith-Spiegel (2002).

A brief note about plagiarism detection software

The need to identify and prevent plagiarism has led to the development of software designed to scan student work for evidence of plagiarism. These programs function by taking a given paper (or computer program) and using search algorithms to compare it to a database of similar assignments and/or material on the Internet (for detailed information on some of these programs, see the information compiled by Renoir Gaither at the U-M Library: <http://www.lib.umich.edu/acadintegrity/instructors/violations/detection.htm>). In general, these programs flag segments of student work that have a high percentage match to any of the works in the search database. Instructors must then verify whether what has been flagged is indeed an example of plagiarism.

An experimental study conducted by Braumoeller and Gaines (2001) using the program EVE (Essay Verification Engine) demonstrated the potential deterrent effect of using such a detection program. When only written or verbal admonishments against plagiarism were given, 12.6% of student papers in an introductory political science class demonstrated some form of plagiarism. When students were informed that the detection program was being used, only 1 paper out of 151 demonstrated plagiarism. However, as Braumoeller and Gaines make clear, using these detection programs requires a fair amount of preparation and care:

We stress one caveat: the majority of cases that we encountered, although they met the university's definition of plagiarism, fell into a gray zone somewhere

between proper citation practice and outright theft. Software is likely to unearth quite a few such cases, so anyone contemplating its use would be well advised to prepare by, for example, providing handouts with examples of proper and improper citation practice, making students aware of relevant university regulations, and so on. Prior to the experiment, we thought it wise to discuss the nature of the penalties to be assessed with our deans, who obliged us by quite clearly explaining what penalties they deemed appropriate. We strongly recommend this course of action to anyone contemplating the use of plagiarism detection software.

Whether to use such software is another question. On the one hand, some instructors may feel that such usage creates a presumption of guilt. Howard (2003) argues that faculty should invest their time in pedagogical, not technological, anti-plagiarism techniques. On the other hand, some evidence suggests that use of plagiarism detection software might remove social biases that arise in reporting suspected violations of academic integrity. A University of Virginia Faculty Advisory Committee (2004) found that certain sub-groups of students (international students, African-American students, athletes and males) were reported more frequently when traditional detection methods were used. When detection software was used, these sub-group differences were not statistically significant. This suggests that social biases may play a role in traditional methods of identifying academic misconduct.

Finally, there is an important legal issue to note. Some of these detection systems (such as EVE) are downloaded to an instructor's computing system and all student work remains in the custody of the instructor and his or her institution. However, other versions, such as Turnitin.com, require that student work be uploaded onto the detection service's system. In these versions, student work then becomes part of the proprietary database of the software purveyor. Legal questions have been raised about this latter system. At U-M, the General Counsel's office has concluded that use of a service like Turnitin.com may violate student ownership rights. The U-M General Counsel's office should be consulted before any use of such programs. (For a general article on the topic, see Foster, 2002.)

Group work

Collaborative assignments and group work have become increasingly typical in higher education but bring with them several ethical challenges that should concern all instructors. For example, the increased usage of collaborative assignments may generate confusion among students about the appropriate boundaries between individual and collective efforts. It is also common for groups of students to take a “divide and conquer” approach – to split an assignment between members of the group but engage in no meaningful collaboration. Other difficulties groups face include “free-riders,” where individuals merely sign off on work completed by others, and the problem of exclusion, where group dynamics lead to the marginalization of one or more individuals.

So what can instructors do? The following recommendations can help avoid problems related to group work:

1. Clearly delineate when collaboration is and is not allowed. (For a useful handout on the matter, see Student Judicial Affairs, UC-Davis (1999b).)
2. Create meaningful assignments that will benefit from a grouped arrangement and explain to students why such an approach is being taken.
3. Attend to group dynamics by assigning student teams. Students should be grouped in ways that allow them to capitalize on one another’s strengths and minimize the chance of student marginalization or isolation.
4. Utilize group contracts that clearly specify individual responsibilities.
5. Implement peer-grading procedures.
6. Plan in-class assessments that hold students individually accountable for group work.

For additional detail on using groups, the following works provide excellent starting points: Michaelson, Fink, & Knight (1997); Millis & Cottel (1998); and Oakley, Felder, Brent, & Elhadj (2004).

Tests and examinations

Instructors need to give extra thought and preparation to high stakes tests and exams in order to protect their integrity and the integrity of hard-working students who have diligently prepared for them. While cheating on exams is

not new, new technologies incorporated into cellphones, personal digital assistants (PDAs) and other devices have expanded the array of methods dishonest students can use to cheat on exams. It is important for all instructors to be aware of these developments and to consider how they may jeopardize the integrity of exam procedures. The following suggestions should help prevent problems:

1. Rotate and revise exam questions if at all possible.
2. Know who your students are; in large classes check IDs before exams.
3. Number exams and include the number on all pages.
4. Require students to provide a blank blue book in exchange for a certified blue book that you provide.
5. Use multiple versions of exams, scrambling question and response order.
6. Use alternate student seating.
7. For computerized testing, use a secure test site and disable access to Web browsers or e-mail.
8. Actively proctor exams.
9. Grading strategies:
 - a. Have one person grade all answers to the same question.
 - b. Mark the end of essay exam answers with a line in ink – this prevents additional information from being appended to an essay after it has been graded and returned.
 - c. On multiple choice exams, mark wrong answers with an X in ink.
 - d. Photocopy graded tests/scantrons before returning to students.

For additional information on cheating strategies students might use and ways to combat them, see Corbett (1999); Davis (1993); Read (2004); Student Judicial Affairs, University of California-Davis (1999); and Whitley and Keith-Spiegel (2002).

What to do if you suspect cheating or plagiarism

Dealing with cheating and plagiarism is an unfortunate aspect of academic life. There are several steps instructors should take if they suspect cheating or plagiarism. First, document as much as you possibly can. If you become

convinced that there is a problem, make a copy of the work(s) in question. For some types of plagiarism cases, locating the original source using text-based search engines on the Internet may be surprisingly easy.

Second, verify the policies and practices of your school or college (and for GSIs, the policy of the lead faculty member or course coordinator). As stated in the University of Michigan *Faculty Handbook*,

Specific standards of academic conduct and processes for handling instances of academic misconduct depend on the student's unit of registration. Faculty should obtain and read the applicable policy, or in the few instances where there is no written policy, discuss the standards and procedures with the appropriate dean. (<http://www.provost.umich.edu/faculty/handbook/8/8.D.html#8.D.2>)

While the policy of the student's school/college of registration governs, several of the schools and colleges (such as LS&A and COE) have worked out collaborative agreements for dealing with academic misconduct cases that involve cross-enrolled students. These cooperative agreements generally provide additional authority to the unit offering the course in which an alleged act of academic misconduct takes place. That unit will typically conduct initial investigations and determine sanctions, though the college in which the student is enrolled retains final authority over the student. For more information about individual school/college academic integrity policies, see the online directory to these policies maintained by CRLT at <http://www.crlt.umich.edu/publinks/honor.html>.

Third, seriously consider invoking formal procedures (even if you are in a unit allowing for informal resolution by instructors). While many instructors prefer to handle student academic misconduct on their own (Bailey, 2001; McCabe, 1993; Whitley & Keith-Spiegel, 2002)⁷, there are some important benefits for handling a case through formal procedures. First and foremost, unless someone else knows that an incident has occurred, there is no way to determine whether it represents an unfortunate one-time occurrence or a pattern of behavior. By using the formal process, patterns

of inappropriate behavior can be identified. Moreover, making use of a formal process enables some monitoring of the type of incidents that are taking place and the kinds of punishments or sanctions that are being handed out. This information can then inform other initiatives around academic integrity. Finally, if your school's formal procedures limit individual instructor action, then taking action outside these structures could be legally problematic.

Institutional Practices That Encourage Academic Integrity

The following section is written for those instructors working to design academic integrity policy for their department, school or college. It raises items for consideration when designing academic integrity policies, noting relevant research where appropriate. For a more detailed discussion of these and related issues, see chapters 5 and 6 of *Academic Dishonesty: An Educator's Guide* (Whitley & Keith-Spiegel, 2002).

Defining academic integrity and academic dishonesty

How should this issue be presented to students? Discussions of academic integrity can easily focus only on incidents of academic dishonesty. As a result, students seldom hear about the central role integrity plays in the academic enterprise. Discussions of cheating, plagiarism, and other forms of dishonesty should be framed by clear statements on the nature and importance of academic integrity as a core value of scholarly work. At the same time, students need detailed definitions and examples of infractions. A policy that simply states that violations of academic integrity will be punished appropriately, or that plagiarism is unacceptable, fails in its mission to teach students and potentially provides students with the excuse that they did not fully understand what the policy prohibited.

Distributing information about academic integrity and fostering an environment supportive of academic integrity

An academic integrity policy means little if no one knows about it. Unfortunately, at many institutions, aside

from comments in the student and faculty handbooks, there is little discussion of academic integrity until problems emerge. At others, academic integrity plays a central role in defining what it means to be a part of that particular academic community. Informing students and faculty about the institution's policies is critical. Some options for doing so include emphasizing and teaching about the policy in orientations for new students and in required classes taken by entering student cohorts. It is also crucial to discuss these policies with new faculty. Some institutions require instructors to include discussions of academic integrity appropriate to their courses on their syllabi and as part of their course content (when appropriate). Some institutions also regularly distribute information about academic integrity cases, providing information (while protecting student privacy) about how such cases have been handled. Regardless of the approach taken, a successful policy requires buy-in from instructors, students, and administrators. It is important, therefore, to learn about the perceptions of these key constituents and to keep them informed of efforts to develop, revise, or newly emphasize academic integrity policy.

The role of honor codes

A typical question that arises when discussing academic integrity policy is the effectiveness of honor codes, either traditional or modified.⁸ Of course, simply having an honor code on the books means nothing unless it is visible to the community. Research demonstrates that students at institutions that have adopted traditional honor codes (and given them a central place institutionally) report engaging in less dishonest academic behavior than students at comparable institutions without such codes (McCabe, Trevino, & Butterfield, 2002). In addition, faculty at schools with traditional honor codes are more likely to invoke formal procedures than are their colleagues at other institutions (McCabe, 1993).

The relevance of honor-code research to U-M may be limited because few institutions outside of small, selective, residential liberal arts colleges have made traditional honor codes a significant element of their communities. Nonetheless, recent studies suggest that honor codes are

effective in larger institutional settings as well. For example, an investigation of academic dishonesty in engineering programs (Harding, Carpenter, Montgomery, & Steneck, 2002) reveals that students in an honor code environment at a large, public university were less likely to report engaging in academic dishonesty than those in non-honor code environments (including students at a private residential technological university, a private commuter university, and two community college pre-engineering programs). Recently, McCabe, Trevino, and Butterfield (2002) investigated the effects of modified honor codes, many of which have been adopted at larger institutions. They found that students at these schools reported less academically dishonest behavior than at no-code schools, though still more than at traditional honor code schools.

Adjudication procedures for violations of academic integrity

Institutions have many choices to make with respect to the adjudication process. One decision involves how formal the procedural steps will be for investigating and disposing of academic misconduct cases and whether this process will be the same as that used for other types of student conduct issues. The courts have consistently held that students have due process rights in academic misconduct situations, although this requirement does not need to translate into highly legalistic procedures. At a minimum, students need to know what they have been accused of and what evidence supports that accusation. They must also have the option to tell their side of the story before an unbiased body (D. Sharporn, personal communication, June 15, 2004). There are many procedural options that can meet these minimum requirements. Whatever method is chosen, it is crucial that faculty and administrators understand the value of operating within this framework and the potential legal and administrative complications that can arise should action be taken outside the institution's policies.

Role of faculty in the adjudication process

In developing academic integrity policy, it is very important to specify the range of actions faculty can take and the procedures faculty must follow to meet due process

requirements. For example, some institutions specify that faculty can assign a failing grade for an academically dishonest assignment without invoking formal procedures; but the imposition of additional academic penalties, such as failure of a course, requires that formal procedures be invoked. When faculty handle cases directly, it is advisable for them to obtain written acknowledgement from the student about the infraction and agreed upon penalty. Some institutions provide a template of such a document for their faculty. Other institutions choose to limit faculty discretion, requiring faculty to report all academic misconduct for formal investigation. However, in operational reality, faculty always have considerable discretion; therefore, it is useful to have policies that guide that discretion, rather than assuming that discretion can be prohibited.

Role of students in the adjudication process

Since academic integrity policy is intended to shape student behavior, it is important to consider the roles students can play. Certainly, students can assist in the development of academic integrity policy. They can also help educate their peers on the importance of academic integrity. In terms of the adjudication process, several models exist for student involvement. Many honor codes place a positive expectation on students to report any academic misconduct of which they are aware (referred to as a “non-toleration clause” or, more colloquially, as a “rat clause”). At honor code institutions, students are typically involved in conducting investigations and populating the hearing panels that recommend or determine sanctions. At non-honor code institutions students have more limited roles, perhaps having a seat on a hearing panel or serving as peer consultants, or have no formal role at all.

Penalties available for academic misconduct

Finally, it is important to specify up front the types of penalties available in academic misconduct cases. Generally, there is a range of options from mild grade penalties through academic suspension/dismissal and degree revocation. Some institutions have developed transcript notations which signify that a particular grade reflects academic misconduct. Other institutions have

created remediation programs – students committing certain types of academic misconduct are referred to these programs and must complete the curriculum in order to maintain their standing within the institution (for a description of one such program see Moore, 2002).

Conclusion

Promoting academic integrity is integral to being part of an academic community. Fortunately, there are many resources to guide practice on these matters. In addition to the references and websites cited throughout this article, instructors at the University of Michigan have additional institutional resources at their disposal. School and college administrators (particularly department chairs and assistant and associate deans), instructional consultants at CRLT, attorneys in the General Counsel’s office, and staff members in the Office of the Vice President for Research (OVPR) can all provide useful assistance to instructors. It is important for all instructors to take time to consider these issues carefully so that they are prepared to promote academic integrity effectively and deal with the unfortunate reality of periodic academic misconduct.

¹ Some studies have looked at this issue experimentally, manipulating specific factors to see how they affect actual student behavior.

² The relationship between gender and academic dishonesty has been researched extensively. In studies that rely on student self-reports, female students report slightly lower rates of academically dishonest behavior than do male students, but the difference is quite small (Whitley, 1998). Looking at all types of studies, it appears that male and female students behave quite similarly (Whitley & Keith-Spiegel, 2002).

³ However, since this study predates the vast technological changes of the last 10 years, it is impossible to know how such changes would have been reflected in these data.

⁴ Of course, the simplest forms of cut-and-paste plagiarism from digital sources are also quite easy to detect. Faculty perceptions of increased student plagiarism may thus reflect greater ease at detecting these actions, rather than an increase in the number of students engaging in them.

⁵ The variables highlighted here are those that had the largest effects and that were represented in repeated studies. As Whitley (1998) discusses in detail, there are other variables which have had strong correlations, but are represented in only in a few studies. Additional variables demonstrate medium or small correlations with academically dishonest behavior. In the real world, many of these variables are highly correlated themselves, making teasing out causal impact very complicated.

⁶ U-M's Office of the Vice President for Research (OVPR) provides guidance to instructors about what types of classroom research assignments require IRB approval. See the OVPR document "Classroom Assignments: Whether and When to Apply for IRB approval." Available at www.irb.research.umich.edu/classassignments_memo_1204.html

⁷ There are several potential reasons: A given incident may be perceived as too minor to address formally. There may be a reluctance to get involved with potentially time consuming administrative procedures. Or there may be a fear that the formal process will result in too extreme (or too lenient) an outcome.

⁸ Traditional honor codes have been characterized by McCabe and his colleagues (McCabe, Klebe, & Butterfield, 1999; McCabe & Trevino, 1993; McCabe, Trevino, & Butterfield, 2002) as having unproctored exams, written honor pledges, major student involvement in academic judicial proceedings, and an expectation that students report violations committed by fellow students. In this research, schools are classified as having a traditional honor code if they meet at least two of these criteria. Recently, McCabe, Trevino, and Butterfield (2002) have introduced the concept of a modified honor code, which they characterize as an institution undertaking significant academic integrity initiatives that include considerable student involvement in the development, dissemination and implementation of academic integrity policy.

References

Bailey, P. (2001). Academic misconduct: Responses from deans and nurse educators. *Journal of Nursing Education*, 40(3), 124-131.

Bowers, W. J. (1964). *Student dishonesty and its control in college*. New York: Bureau of Applied Social Research, Columbia University.

Braumoeller, B. F., & Gaines, B. J. (2001). Actions do speak louder than words: Deterring plagiarism with the use of plagiarism-detection software [Electronic version]. *PS: Political Science and Politics*, 34(4), 835-839.

Corbett, B. (1999). *The cheater's handbook*. New York: Harper Collins.

Davis, B. G. (1993). *Tools for teaching: Preventing academic dishonesty*. Retrieved, August 13, 2004, from <http://teaching.berkeley.edu/bgd/prevent.html>

Davis, P. M. (2003). Effect of the Web on undergraduate citation behavior: Guiding student scholarship in a networked age. *portal: Libraries and the Academy*, 3(1), 41-51.

Ehrlich, H. (2000). *Plagiarism and anti-plagiarism*. Retrieved December 5, 2001, from <http://www.andromeda.rutgers.edu/~ehrllich/plagiarism598.html>

Foster, A. (2002, May 17). Plagiarism-detection tool creates legal quandary. *The Chronicle of Higher Education*, p. A37.

Groark, M., Oblinger, D., & Choa, M. (2001). Term paper mills, anti-plagiarism tools, and academic integrity [Electronic version]. *EDUCAUSE Review*, 36(5), 40-48.

Hansen, B. (2003). Combating plagiarism [Electronic version]. *CQ Researcher*, 13(32), 773-796.

Harding, T. S., Carpenter, D. D., Montgomery, S. M., & Steneck, N. H. (2002, November). *A comparison of the role of academic dishonesty policies of several colleges on the cheating behavior of engineering and pre-engineering students*. Paper presented at Frontiers in Education Conference, Boston, MA.

Harris, R. (2002, March 7). *Anti-plagiarism strategies for research papers*. Retrieved August 5, 2002, from <http://www.virtualsalt.com/antiplag.htm>

Howard, R. M. (2003). At issue: Should educators use commercial services to combat plagiarism? [Electronic version.] *CQ Researcher*, 13(32), 789.

Howard, R. M. (2001, November 16). Forget about policing plagiarism. Just teach. *The Chronicle of Higher Education*, p. B24.

- Lipson, A., & Reindl, S. M. (2003). The responsible plagiarist: Understanding students who misuse sources. *About Campus*, 8(3), 7-14.
- McCabe, D. L. (1993). Faculty responses to academic dishonesty: The influence of student honor codes. *Research in Higher Education*, 34(5), 647-658.
- McCabe, D. L., Klebe, L., & Butterfield, K. D. (1999). Academic integrity in honor code and non-honor code environments: A qualitative investigation. *The Journal of Higher Education*, 70(2), 211-234.
- McCabe, D. L., & Pavela, G. (2004). Ten [updated] principles of academic integrity. *Change*, 36(3), 10-15.
- McCabe, D. L., & Trevino, L. K. (1993). Academic dishonesty: Honor codes and other contextual influences. *Journal of Higher Education*, 64(5), 522-538.
- McCabe, D. L., & Trevino, L. K. (1996). What we know about cheating in college: Longitudinal trends and recent developments. *Change*, 28(1), 28-33.
- McCabe, D. L., & Trevino, L. K. (1997). Individual and contextual influences on academic dishonesty: A multicampus investigation. *Research in Higher Education*, 38(3), 379-396.
- McCabe, D. L., Trevino, L. K., & Butterfield, K. D. (2002). Honor codes and other contextual influences on academic integrity: A replication and extension to modified honor code settings. *Research in Higher Education*, 43(3), 357-378.
- Michaelson, L. K., Fink, L. D., & Knight, A. (1997). Designing effective group activities: Lessons for classroom teaching and faculty development. In D. DeZure (Ed.), *To Improve the Academy*, Vol. 16 (pp. 373-398). Stillwater, OK: New Forums Press and the Professional and Organizational Development Network in Higher Education.
- Millis, B. J., & Cottel, P. G. (1998). *Cooperative learning for higher education faculty*. Phoenix, AZ: Oryx Press.
- Moore, B. J. (2002). Truth or consequences. *About Campus*, 7(4), 25-28.
- National Academy of Sciences, National Academy of Engineering, Institute of Medicine (1994). *On being a scientist: Responsible conduct in research* (2nd ed.). Washington, DC: National Academy Press. Retrieved January 10, 2005, from <http://www.nap.edu/readingroom/books/obas/>
- Newton, J. (1995, April). *Plagiarism and the challenge of essay writing: Learning from our students*. Paper presented at the American Association for Higher Education Quality and Assessment Conference, Boston, MA.
- Oakley, B., Felder, R. M., Brent, R., & Elhadj, I. (2004). Turning student groups into effective teams. *Journal of Student Centered Learning*, 2(1), 9-34.
- Read, B. (2004). Wired for cheating: Some professors go beyond honor codes to stop misuse of electronic devices. *The Chronicle of Higher Education*, A27.
- Risacher, J. (1996). Academic misconduct: NASPA institutional members' views and a pragmatic policy model. *NASPA Journal*, 33, 105-124.
- Scanlon, P. M., & Neumann, D. R. (2002). Internet plagiarism among college students. *Journal of College Student Development*, 43(3), 374-385.
- Steneck, N. (2004). *ORI Introduction to the responsible conduct of research*. Washington, DC: Department of Health and Human Services Office of Research Integrity.
- Stevens, E. H. (1996). Informal resolution of academic misconduct cases: A due process paradigm. *College Teaching*, 44(4), 140-144.
- Student Judicial Affairs, University of California - Davis. (1999). *Tips to prevent cheating*. Retrieved November 16, 2004, from <http://sja.ucdavis.edu/pdf/TIPS.pdf>
- Student Judicial Affairs, University of California - Davis. (1999). *Unauthorized collaboration: What students need to know*. Retrieved November 16, 2004, from <http://sja.ucdavis.edu/pdf/collab.pdf>
- Taylor, B. (n.d.). *Academic integrity: A letter to my students*. Retrieved August 13, 2004, from http://www.academicintegrity.org/resources_inst.asp
- University of Virginia Faculty Advisory Committee. (2004). *An analysis of honor initiations and convictions, 1998-2003*. Retrieved January 10, 2005, from <http://www.virginia.edu/honor/index.html>
- Whitley, B. E., Jr. (1998). Factors associated with cheating among college students: A review. *Research in Higher Education*, 39(3), 235-274.
- Whitley, B. E., Jr., & Keith-Spiegel, P. (2002). *Academic dishonesty: An educator's guide*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Young, J. R. (2001, July 6). The cat-and-mouse game of plagiarism detection. *The Chronicle of Higher Education*

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