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Using audience response technology to teach academic integrity

“The seven deadly sins of plagiarism” at Dickinson College

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Abstract

Purpose – This paper seeks to explore the successes and challenges associated with teaching first-year students a session on plagiarism avoidance through the use of an audience response system.

Design/methodology/approach – An audience response system was used to test first-year students’ knowledge of plagiarism. Quiz questions about academic honesty and plagiarism were administered, and were answered anonymously with hand-held remote control devices. The reporting feature of the technology was used to gather results of the answers to these questions, which will be used to improve the session in future years.

Findings – Data gathered from the sessions indicated that this session helped students retain knowledge of plagiarism rules. Comments solicited about the session indicated that the students enjoyed the lesson, that they were better able to recognize problem areas in their own writing, and that the interactivity kept them focused on the lesson.

Research limitations/implications – The session will have to be repeated over a number of years to determine whether there is a link between it and the number of plagiarism incidents on campus.

Practical implications – This paper provides a practical and relatively inexpensive approach for teaching academic integrity to large groups of students. An undertaking of this magnitude requires dedicated involvement from an institution’s administration. Any correlation between the session and the number of plagiarism cases may never be able to be proved conclusively.

Originality/value – Audience response technology is not yet widely used in small academic libraries. This paper offers a suggestion for implementing this technology to teach academic integrity in a consistent and effective way to large groups of first-year undergraduate students.

Keywords Students, Dishonesty, Authorship

Paper type Case study

Introduction

No information literacy program on a college or university campus can be considered truly comprehensive if it does not address plagiarism. As is evident from the steady stream of articles in the *Chronicle of Higher Education*[1] and other higher education journals, this issue remains one of constant concern to librarians and all those who teach post-secondary students. Dickinson College is no exception. After various, less-than-successful attempts at dealing with plagiarism on our campus through classroom instruction, large group lecture, and small group discussion, the faculty and administration of Dickinson College sought a creative and engaging way to ensure that all students receive a consistent message about academic integrity and plagiarism



avoidance. This paper will explore the development, implementation, and results of an anti-plagiarism program that incorporated audience response system technology.

Dickinson College, located in Carlisle, Pennsylvania, is a small, undergraduate, liberal arts college chartered in 1783. Dickinson enrolls approximately 2,000 full-time, traditionally-aged students and employs approximately 200 faculty members. On matriculation, each first-year student is required to enroll in a first-year seminar, which is a topical, semester-long course that introduces students to college-level research and writing. The seminars are taught by a representative number of faculty members from all three educational divisions – the humanities, social sciences, and natural sciences. The first-year seminar experience was intended to be the primary medium through which plagiarism avoidance is taught, since this is the only course required of every Dickinson student. Until recently, however, plagiarism at Dickinson has been addressed in an irregular and unsystematic fashion. In past years at Dickinson, librarians would deliver plagiarism instruction mainly by discussing it briefly during the information literacy sessions that are required elements of the first-year seminar, and by offering remedial assistance to students against whom professors brought plagiarism accusations. Although at Dickinson we have had an information literacy plan in place for first-year students since 1981[2], we never set aside instructional time devoted specifically and consistently to preventing plagiarism and promoting academic integrity. In recent years, however, the administration has expressed interest in partnering with the faculty and librarians to devise inspired ways to educate students about this issue.

When the librarians were asked to participate in this initiative, we considered how we might make plagiarism instruction a regular and separate part of our information literacy plan. We asked ourselves some difficult questions: How in the age of the internet is it possible to prevent plagiarism on our campus? How could we hope to address this issue effectively, when, as Joe Kraus put it, “almost anywhere [students] look, with the college classroom only a partial exception, they see examples of information and ideas moving from one location to another without any clear author or attribution” (Kraus, 2002, p. 87)? With technology making the flow of information instant, seemingly free, and easy to copy, can we really make students understand that using such information without attribution constitutes theft of intellectual property? Since all of these questions involved technology, it seemed logical that they would be best answered with technology. At Dickinson, we decided to handle plagiarism education by “fighting fire with fire.” We determined to use technology as a tool to ward off the mistakes, misunderstandings, and abuses brought about partially by its own advantages. Beginning in the fall of 2006, Dickinson College attempted to combat plagiarism in an innovative way, by developing and teaching a session on academic integrity using audience response system software.

Dickinson College applied different approaches to preventing student plagiarism over the years. Prior to 2003, residence hall advisors would discuss plagiarism rules with first-year students during orientation as part of a review and discussion of Dickinson’s Code of Conduct, which is a document that defines the standards of academic and social conduct on campus. The Code defines plagiarism as “to use without proper citation or acknowledgment the words, ideas, or work of another”[3]. Beginning in 2003, the college added a program to orientation called “Academic expectations” which dealt exclusively with academic integrity[4]. Additionally, the

dean's office relied on individual faculty members who teach Dickinson's first-year seminars to teach academic integrity during the normal course of instruction. Faculty members were also encouraged to take advantage of "teachable moments" by addressing specific instances of questionable conduct individually without tainting the student's academic record.

In 2004, the college's associate provost surveyed faculty members who had taught first-year seminars and found that, even though one of the goals of the seminars is for students to learn and practice effective college-level research and writing habits, the first year seminar faculty were addressing the issue of academic honesty unevenly. The survey found that "some [professors] never talked about it, some did passive things [such as] put it on the syllabus, and some were much clearer"[5]. Dickinson College imposes strong penalties on those found responsible for cheating, including course failure and suspension. Therefore, the administration wanted to make it imperative that new students receive clear and consistent information about academic expectations and standards in the Dickinson community.

In order to accomplish this goal, the associate provost approached the library director in the spring of 2006 and asked that the librarians, as experts in the areas of research and citing, participate directly in the education of first year students by developing and teaching a session on plagiarism and academic integrity. This session would be required of all first year students, and held outside of regular class times, with attendance enforced by the office of the provost. The library director accepted gladly this invitation to participate so directly in the educational mission of the college.

During the same semester, the library director had noticed that some of the science departments on campus had begun using audience response systems to enhance classroom learning, and she wondered if this technology could be applied to the plagiarism issue. An audience response system, known by various alternative names including "classroom response system," "personal response system," "electronic voting system," and "polling system," is technology that allows individual members of a class to respond by way of hand-held remote control devices to multiple choice, true/false, or opinion questions projected on-screen. As soon as the students respond to each question, the software generates a graph or chart of the class' responses in aggregate, thereby allowing the instructor to garner immediate feedback from students regarding their comprehension during a lecture. The instructor can then tailor the lesson on the spot to reinforce troublesome concepts, to spend less time on areas that the students are already grasping well, or to generate discussion. Although the instructor can track individual responses to each question, by default the results are anonymous. The response devices are similar to those seen on television reality and game shows, and the software runs typically in conjunction with Microsoft PowerPoint or Excel. In addition, the software that the Dickinson College library purchased generates reports in Microsoft Excel at the end of each session, giving the instructors the capability of assessing the effectiveness of the program as a whole, as well by individual class.

Once it was decided to try using an audience response system to create a lesson on plagiarism, the library staff investigated several brands, eventually deciding to purchase TurningPoint software from Turning Technologies, LLC. At approximately \$2800.00, this brand was more expensive than some of the others; however, we decided in consultation with our campus information technology professionals that it would be the best option for our needs in the library. Aesthetically, the TurningPoint remote

control devices were professional-looking, while some of the competitors' products looked too much like television remote controls or toys. During the testing of several products, we determined that the TurningPoint interface was more sophisticated than some other brands, yet proved relatively easy to use, partly because the software integrates familiar buttons and features used in Microsoft products. TurningPoint runs from a toolbar embedded in Microsoft PowerPoint, and enables the collection of data through reports generated by Microsoft Excel. However, although it looked simple, the software was not entirely intuitive and required two online training sessions to learn how to create the interactive slides, save data, and run reports.

Librarians have far less contact time with students than do their classroom professors, and librarians often do not get the chance to develop the individual relationships with students that help encourage them to participate in class discussions. Therefore, this "one-shot" presentation needed to be engaging and make a measurable impact on students in 50 minutes or less. The audience response system seemed to offer a fun, interactive and yet non-threatening way in which to handle the teaching of academic honesty while allowing the opportunity to assess the effectiveness of the program with minimal extra work.

Review of the literature

Creating a successful anti-plagiarism lesson with this new technology required research in two areas: plagiarism trends among first-year college students and the effective use of an audience response system. The lesson itself had to be clear and comprehensible, addressing examples of the kind of cheating in which undergraduate students have been found to engage, while at the same time drawing maximum advantage from the audience response system. The technology needed to be incorporated seamlessly into the lesson and secondary to the important message being delivered. Therefore, we paid particular attention to the suggestions both of those who have attempted to minimize plagiarism on their campuses and those who have successfully incorporated audience response systems into their lessons.

Plagiarism

Several writers of the recent scholarly literature on plagiarism agree that new college students plagiarize because they do not yet have the ability to recognize their wrongdoing. Rather than intentionally behaving dishonestly, many students are producing work that seems perfectly legitimate in their own minds. While students can define the most obvious form of plagiarism as using word-for-word quotes without giving credit to the original author, many students do not understand the finer nuances of this transgression.

Joe Kraus, for example, postulates that many undergraduate students "have had so few models of original thinking that they have had a hard time recognizing it and a harder time valuing it in the work of others" (Kraus, 2002, p. 85). He also notes that rarely in the academic setting are students actively and systematically learning the difference between interpreting information and stealing intellectual property (Kraus, 2002, p. 84).

Passive forms of dealing with plagiarism on college and university campuses have certainly proven ineffective and bolster Kraus' argument. For example, most colleges and universities, like Dickinson, have policies that address academic honesty posted on

their web sites and distributed in pamphlets to new students. However, the mere existence of an academic code of conduct does not ensure that students will read it, let alone understand it and abide by it. Breen and Maassen have found that the “development of academic misconduct policies has done little to reduce the incidence of plagiarism in many incidents result[ing] from ignorance and poor skill development rather than intentional misconduct” (Breen and Maassen, 2005). They further add that the lack of a uniform, campus-wide system of plagiarism prevention “does little to minimise inconsistencies between staff” (Breen and Maassen, 2005) in dealing with the issue. The students that Breen and Maassen surveyed in their study reported that they were likely to take plagiarism rules seriously only when their grades were clearly at risk (Breen and Maassen, 2005). The lack of inconsistency in delivering the message about what plagiarism and its consequences was an issue we hoped to address at Dickinson with the development of the new lesson.

One challenge of this project was determining which specific aspects of the issue to address, and how to address them effectively. Kraus recommends “. . .mak[ing] my plagiarism policy clearer from the start,” “demonstrat[ing] that I enforce it at all times” and “show[ing] examples of proper and improper citations” (Kraus, 2002, p. 86). Brandt also suggests clearly defining plagiarism and showing specific examples, as well as describing the consequences of plagiarism, promoting its prevention, and regularly discussing it (Brandt, 2002, p. 41).

The web site Plagiarism.org, sponsored by Turnitin.com, was particularly useful in identifying specific types of plagiarism and devising examples to use during the lesson. “The seven deadly sins of plagiarism” presentation incorporated examples in the following categories as described on plagiarism.org:

- “The ghost writer” – turning in another’s work, word-for-word, as one’s own.
- “The potluck paper” – disguising plagiarism by copying from several different sources, tweaking the sentences to make them fit together while retaining most of the original phrasing.
- “The poor disguise” – although the writer has retained the essential content of the source, he or she has altered the paper’s appearance slightly by changing key words and phrases.
- “The self-stealer” – borrowing from one’s own previous work.
- “The forgotten footnote” – mentioning an author’s name for a source, but neglecting to include specific information on the location of the material referenced.
- “The misinformer” – providing inaccurate information regarding the sources, making it impossible to find them[6].

Audience response systems

Another challenge associated with this project was how to develop a session including the practical knowledge needed to recognize and avoid plagiarism, and present it in a smart technological format that would be memorable, meaningful and useful. Literature on audience response systems that has been proliferating in the past few years reinforced the decision to use it for this project at Dickinson College. Cutts of the University of Glasgow and Kennedy of the University of Melbourne, for example, engaged in a three-year study of audience response systems in large lecture halls, in

which they found that, when integrated carefully, audience response systems can be used to introduce higher-order thinking and professor/student interaction into large lectures (Cutts and Kennedy, 2005). They reported that “[i]n general, students who responded to E[lectronic] V[oting] S[ystem] questions fared better in assessments” (Cutts and Kennedy, 2005, p. 183). Elliott of Lancaster University in the UK used an audience response system to teach micro-economics and found that the active learning environment “provided a very useful means of checking students’ understanding of the material covered” and “offered students an easy method of gauging their own understanding, and comparing their performance against that of their peers” (Elliott, 2003, p. 82). Similar successes with audience response systems were reported from instructors at West Virginia University’s doctor of pharmacy program, who said that the audience response systems “can facilitate active student participation” and “be effectively used to gauge student understanding in the classroom” (Slain *et al.*, 2004, p. 9), and from the UMDNJ-Robert Wood Johnson Medical School’s obstetrics and gynecology program, whose study “showed increased knowledge retention” in a group of students that participated in a lecture incorporating a voting system, as compared to a group that received a traditional lecture (Pradhan *et al.*, 2005).

Most of the currently available literature about audience response systems deals with its use in teaching the research sciences, medicine, and law. To date, little has been written about the practical applications of this software in the humanities and social sciences. The research that is available offered promising results when the software is used wisely. Robertson, for example, in arguing against lecture-format instruction in which “the audience assumes a purely passive role”, found that audience response systems promote “more efficient acquisition and retention of knowledge through active learning” (Robertson, 2000, p. 237). Draper and Brown add that the function of “[h]aving to produce an answer oneself causes the mental processing: otherwise most students play the role of spectator and wait to see how it will be answered by others” (Draper and Brown, 2004, p. 89). This active involvement in learning is beneficial not only for the students but also for the instructor who also receives immediate feedback on the lesson (Elliott, 2003, p. 84) and can thereby adjust, for example by paying more attention to concepts with which the students seem to be struggling.

Beatty *et al.* (2006) offer some practical advice for using audience response software successfully. They recommend focusing the subject material to highlight the points that most need to be illuminated, and making clear to the students how they will use the material you are presenting (Beatty *et al.*, 2006, p. 34-35). Finally, they recommend addressing metacognitive thinking by designing the lesson so that it makes clear the answer to, “What beliefs about learning and doing . . . do we wish to reinforce?” (Beatty *et al.*, 2006, p. 35).

Robertson suggested the following tips for creating an effective presentation:

- brief audience on what is expected;
- provide clear instructions;
- keep questions short and simple;
- offer no more than five answer options;
- do not make questions overly complex;
- use answers to the questions to encourage discussion;

- use the voting sparingly to highlight the points you most want to emphasize; and
- do not overuse the system (Robertson, 2000).

Draper and Brown (2004, p. 86) also warn against overusing the software, specifically against asking questions for the sake of using the system, reinforcing the idea that questions in which the equipment is used should be meaningful and relevant to the lesson. They also point out that it is important to build enough time into each lesson for the students consider all possibilities before they vote (Draper and Brown, 2004, p. 87).

In the spirit of educating our students effectively, this good advice regarding combating plagiarism and the use of audience response technology was incorporated into our academic honesty program at Dickinson College.

Challenges

Our mandate was not to deliberate about the reasons why students might plagiarize, but to explain clearly what plagiarism is according to both Dickinson College's policy and accepted definitions in educational literature, and what the consequences related to these behaviors are. Our program, entitled "The seven deadly sins of plagiarism: working honestly at Dickinson College" was developed with the assumption that there would be students present with little or no prior knowledge of the definitions of plagiarism and little or no formal training on acceptable practices in college-level writing. We did not intend to focus on why some students might resort to plagiarism; but rather to reinforce good research practices, to educate students on what to avoid, and what they could expect if they chose to engage in inappropriate behavior. Our goal was to reduce the number of plagiarism charges on campus, and, with it, the necessity of imposing punitive measures on those found responsible for the offense, particularly in the most difficult cases where students claim that they do not understand why their work was unacceptable. We also wanted to address those students who desire to do well and follow good practices, but who may not have been previously taught about acceptable academic writing. Therefore, we wanted the presentation to take a positive tone and avoid harsh admonition.

The challenges with developing this project were somewhat daunting. The project was begun in April 2006, with a deadline of mid-August 2006. The plan called for the selection of software; training for the project leader; development and review of the lesson's content, design, and layout; initial presentation to the faculty members and administrators, revisions and redesign to incorporate feedback; training the liaison librarians on how to work with the software and deliver the lesson; and the creation of a schedule to accommodate more than 600 students. The lesson was intended to last for approximately 50 minutes and would be delivered to groups of students no larger than 33, the capacity of the largest classroom in the library building and the number of remote control devices purchased. In order to determine the effectiveness of the program, we also incorporated an assessment plan that included free response comments and a quiz that tested students' retention of the material within the framework of the audience response system.

Because the Office of the Academic Affairs was relying on this new pedagogical tool to deliver reliable information to the first year students, another challenge was ensuring that the presentation would be delivered in a consistent manner by all eight participating instructors. There was little room for teaching improvisation. The

presentation had to guarantee that that all first-year students would hear the same lesson on plagiarism, because future hearings on violations of the academic code would presume that students had learned the basics of plagiarism avoidance during this required session. In order to make sure that the presentation was delivered the same way each time, that all relevant points were communicated to all students, and that the answers to upcoming questions were not inadvertently revealed through improvising, each presenter read from a script.

The atypical teaching environment necessitated by script-reading proved to be a challenge to the library staff members who participated in the teaching of this lesson. In order for the presentation to flow smoothly, it required that specific actions such as reading instructions, opening the polling for each question, revealing the answer choices, and advancing to the next slide be done at exact points. Therefore, the presenters had to suspend some of the usual accepted practices of good teaching, such as moving out from behind the podium, improvising, and making frequent eye contact with the audience. The difficulties some presenters experienced in teaching from a script were alleviated with practice in the weeks leading up to the debut of the presentation. Each librarian practiced the presentation at least twice with a random audience of library staff members, faculty members, administrators and upper class students. The librarians not only practiced the delivery of the presentation, but also the set-up, saving the sessions, and running reports within the allotted time frame of less than one hour.

The presentation

The title of the presentation, entitled “The seven deadly sins of plagiarism: working honestly at Dickinson College,” was chosen partly to inject some humor into the session and also to provide focus and a limit to the number of plagiarism issues addressed. Seven discussion points seemed like a reasonable number to work into a 50 minute session, and the title, although light-hearted, alluded to the serious nature of the subject matter.

As recommended by Robertson, the presentation began with a brief explanation about what was about to occur and what the students were expected to do, and when (Robertson, 2000, p. 239). We assured the students that their responses were anonymous and that their answers would be collected only in aggregate in order to help us determine if the program was effective. To prevent theft of the equipment, we explained that the keypads would work only with the software designed for them and asked the students to line up at podium to return them before they exited the classroom.

The questions that invited voting were designed to determine students’ prior knowledge of plagiarism rules and their attitudes toward the issue. The presentation was peppered with real life examples of plagiarism, specifically the accusations levied against authors Stephen Ambrose and Doris Kearns Goodwin. Each specific form of plagiarism, or “sin,” was preceded by a question testing the students’ prior knowledge of that issue, and followed by an explanation of why the example did or did not represent a form of plagiarism. Most of the slides with a voting option were true/false statements. The presentation addressed the following seven “deadly sins:”

- (1) Using a direct quotation from a source with no attribution whatsoever.
- (2) Paraphrasing without attribution.

- (3) Failure to use quotation marks when borrowing a direct quote, even with the presence of a note.
- (4) Failure to provide footnotes or in-text notes even when quotation marks are used.
- (5) Attempting to use ignorance of plagiarism rules as an excuse for plagiarizing.
- (6) Copying material from the internet without citing it.
- (7) Failure to provide accurate citations by making sloppy mistakes or typographical errors.

The “sins” section of the presentation was followed by a discussion of the consequences of engaging in plagiarism at Dickinson College, which include course failure and suspension, and information about where to get further help. Additionally, to summarize, reinforce the “seven deadly sins” theme, and to end on a humorous note, the seven “sins” were countered with seven “anti-plagiarism commandments:”

- (1) Thou shalt not presenteth another’s research as thine own.
- (2) Usest quotation marks whenever borrowing thy neighbor’s phrase.
- (3) Includeth footnotes or in-text notes whenever quoting, paraphrasing, or borrowing an idea that is not thine own.
- (4) Createth a bibliography or works cited list for every research project.
- (5) Verily, thou shalt recordeth thoroughly and accurately all sources consulted.
- (6) Giveth proper credit to internet sites.
- (7) Do not thinketh thyself immune to being smote with the consequences of plagiarism.

At the end of the presentation, the students were given a five-question quiz designed to test their retention and understanding of the issues raised during the presentation.

Results

Throughout September and October 2006, the plagiarism lesson was delivered 25 times over five weeks to 535 students. Because the class size for this presentation never exceeded 33 students, each presenter had plenty of time to pause long enough after each question to ensure that all students had voted. Unfortunately, in many cases, the system did not register responses from the entire class. This was due partially to the students not pressing the keypad buttons hard enough, and not watching to make sure that the green lights illuminated on the keypads, indicating that their response had been registered. Sometimes this problem was solved by asking all the students to vote again; this was possible since the TurningPoint registers only one vote per keypad per question. After about half the sessions were completed, we also started experiencing response failure due to a number of defective remote control devices. Although the company replaced the devices promptly, some data was lost before the discovery the problem.

Despite these problems, we were still able to collect a significant sample of responses to each question, with no less than 436 responses per question and a maximum of 500 responses per question. The results of the early questions indicated that, when asked to choose the correct definition of plagiarism from multiple choices,

students were indeed able to pick out the correct answer easily. The question “What is plagiarism?” offered a choice of four answers:

- (1) Using unauthorized notes during exams.
- (2) Collaborating on an assignment when you have been instructed to work independently.
- (3) Presenting someone else’s work as your own.
- (4) Copying someone’s answers during a test.

Of the 483, 446 students (92 per cent) responded with the correct answer, “(3) Presenting someone else’s work as your own.” Table I further demonstrates that most of the participating students were able to identify definitions of plagiarism when asked to choose from a true/false statement. For example, 75 percent of the students responded correctly (true) to the true/false statement, “I must acknowledge my source if I quote only 2 or 3 words in my paper.” Likewise, 92 percent responded correctly (false) to the true/false statement “Copying something from the internet without citing it is not plagiarism.”

Students began exhibiting trouble when the nature of the questions shifted. The early questions in the presentation simply required students to identify definitions of plagiarism. The second section, which presented students with scenarios rather than definitions, required students to identify plagiarism from samples of plagiaristic writing. The students were less successful at identifying these practical examples of plagiarism. For example, in Scenario 1, the students were shown a phrase taken from a journal article. Then they were then shown an excerpt from a research paper that used the exact phrase they had just seen with an in-text note but without quotation marks. Only 63 per cent of the students recognized a sample of a direct quote without quotation marks to be plagiarism; even though 75 per cent of them correctly answered

Question	Correct response	Number of respondents	Number correct	Per cent correct
I must acknowledge my source if I quote only two or three words in my paper.	True	495	375	75.76
If I did not plagiarize on purpose, I will not be found responsible.	False	494	440	89.07
Copying something from the internet without citing is not plagiarism	False	500	464	92.80
Scenario 1: Plagiarism or not? (In-text cite with no quotation marks)	Plagiarism (Yes)	475	300	63.16
Scenario 2: Plagiarism or not? (Quotation marks with no attribution)	Plagiarism (Yes)	490	340	69.39
Scenario 3: Plagiarism or not? (Wrong author cited)	Plagiarism (Yes)	489	227	46.42
Scenario 4: Plagiarism or not? (Paraphrasing without attribution)	Plagiarism (Yes)	485	239	49.28

Table I.
Results of questions
asked during the lesson

“true” to the statement, “I must acknowledge my source if I quote only 2 or 3 words in my paper.” The group did a little better on the second scenario. A total of 69 per cent of the students correctly identified the second scenario, failure to use a footnote or in-text note with quotation marks present, as plagiarism. Only 49 per cent were able to identify as plagiarism the mistake of attributing a quote to the wrong author.

The five-question quiz delivered at the end of the presentation demonstrated that our students had difficulty applying definitions of plagiarism to unfamiliar situations. They had particular trouble with the concept of borrowing from oneself without attribution; in fact one class engaged in a lively follow-up discussion about that aspect of plagiarism. Interestingly, many of our students also faltered on a sample that did not represent plagiarism, in which a direct quote from an article was surrounded by quotation marks and followed by an in-text note. Otherwise, the students seemed to retain what they learned during the lesson when the sample they were provided in the quiz was similar to an example provided during the lesson. The complete results of the quiz are reproduced in Table II.

Perhaps the most interesting and significant part of this lesson were the results of a statement to which the students responded twice during the presentation, once at the beginning and once near the end. The statement was, “At some point in my academic career, I have committed an act of plagiarism.” Table III shows the aggregate results of the question.

In every session, the return on “Yes, I have” increased, sometimes dramatically, the second time the questions was asked. In none of the sessions did this trend reverse;

Question	Correct response	Number of respondents	Number correct	Per cent correct
Example 1: Plagiarism or not plagiarism? (Borrowing from self without attribution)	Plagiarism (Yes)	436	236	54.13
Example 2: Plagiarism or not plagiarism? (Direct quote with quotation marks and in-text note)	Not plagiarism (No)	477	291	61.01
Example 3: Plagiarism or not plagiarism? (Unattributed photograph)	Plagiarism (Yes)	482	393	81.54
Example 4: Plagiarism or not plagiarism? (Chart copied with attribution)	Not plagiarism (No)	465	352	75.70
Example 5: Plagiarism or not plagiarism? (Paraphrasing without attribution)	Plagiarism (Yes)	460	322	70.00

Table II.
Quiz results

Table III.
At some point in my academic career, I have committed an act of plagiarism (aggregate results)

	Beginning	End
Total responses	496	489
Total responses of “Yes, I have”	256	332
Percent “Yes, I have”	51.61	67.89

rather there were classes in which the results of this question were more remarkable than the aggregate table reveals, as is demonstrated by the samples in Table IV.

Tables III and IV suggest that students did indeed leave the session with a better understanding of plagiarism rules than they had before the lesson. This was supported by additional comments from the students. Before leaving the session, students were asked to fill out free-response comment cards, asking simply for their reaction to the presentation. This request elicited the following representative sample of comments received from many of the students:

I felt very well informed by the end.

[the presentation] . . . actually enlightened me on the finer points of plagerism [*sic*].

I learned about the mistakes I've been making.

Do this before we write our first paper.

I learned a lot and I think that is mostly because this was fun and interactive.

Perhaps more enlightening were the students' reactions to the remote control devices. The students made numerous comments about the clickers being fun to use, such as:

The clickers were fun.

The clicky things ROCKED.

Loved loved LOVED the remote thingies.

More importantly, many of the students also made comments to the effect that the audience response software helped them remain focused during the lesson. Many students made comments similar to:

The clickers forced me to pay attention.

The clickers made me concentrate.

The clickers kept me from zoning out.

Conclusion

"The seven deadly sins of plagiarism" lesson will continue at Dickinson College. The presentation was well-received by the faculty and the Office of Academic Affairs; and

Session	Percent "Yes" at beginning	Percent "Yes" at end
4	60	90
6	39	60
10	57	95
13	43	68
19	53	66
21	27	61
23	50	78
25	50	87

Table IV.
At some point in my
academic career, I have
committed an act of
plagiarism (by selected
individual sessions)

the results of the questions suggest that the students have indeed come away from the session better informed about academic honesty.

The session will be improved in subsequent years. The librarians who delivered the lesson, the students who received the lesson, and some faculty members who saw it offered some constructive advice for improvement. We will, for example, restructure the lesson so that it focuses more on the concepts with which students expressed the most difficulty, such as paraphrasing. Also, the presentation will be redesigned to include more practical examples. It will be reduced in time to about half an hour and we will attempt to organize a schedule that will reach all of the first-year students earlier in the fall semester.

In future years, after several first-year classes have received this session, we at Dickinson College will be able to examine campus plagiarism statistics on campus to see if the number of plagiarism cases decreases. Preliminary reports from the fall of 2006 indicate that there was a small decrease in the number of first-year students found responsible for committing plagiarism, in comparison with the fall of 2005. Although we may never be able to link conclusively a reduction in the college's plagiarism statistics with our session, we can at least, in the words of the college's associate provost "...be fairly confident that first-year students are not confused about what we mean when we talk about academic honesty and integrity. We can build on that platform and confidently hold students accountable when they fall off"[7].

A copy of "The seven deadly sins of plagiarism: working honestly at Dickinson College" in Microsoft PowerPoint is available at the following internet address: <http://lis.dickinson.edu/Library/Faculty%20Services/fyseminars.html>

Notes

1. See for example the following articles in the *Chronicle of Higher Education*: Julia M. Klein, "Plagiarism and other unoriginal sins", 11 November 2005; Michael Thompson, "Hidden in plain sight", 2 December 2005; Thomas Bartlett, "Ohio U. Investigates plagiarism charges", 10 March 2006; and Deborah R. Gerhardt, "The rules of attribution", 26 May 2006.
2. For more information about the history of Dickinson College's first-year seminar program, see Bombaro and Stachacz (2007), "Case 1: The Library and the First-Year Experience Over Time at Dickinson College," *The Role of the Library in the First College Year*, edited by Larry Hardesty, Columbia, SC: National Resource Center for the First-Year Experience & Students in Transition, University of South Carolina.
3. The Dickinson College (2006–2007) "Community's Standards and Procedures" document is available in.pdf format at www.dickinson.edu/student/files/commstand0607.pdf
4. Rebecca Hammell, Associate Director of Advising, Dickinson College, e-mail message to author, 10 October 2006.
5. Joyce Bylander, Associate Provost, Dickinson College, e-mail message to author, 11 October 2006.
6. "What is plagiarism?" from Turnitin.com (n.d.) is available at www.plagiarism.org/research_site/e_what_is_plagiarism.html
7. Joyce Bylander, Associate Provost, Dickinson College, e-mail message to author, 11 October 2006.

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