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The Journal of Effective Teaching is published online at http://www.uncw.edu/cte/et/. All submissions should be directed electronically to Dr. Russell Herman, Editor-in-Chief, at jet@uncw.edu. The address for other correspondence is

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(ISSN 1935-7869 for limited print issues and ISSN 1935-7850 for the online issues)

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CALL FOR PAPERS

Manuscripts for the next issue will be due May 31, 2008. Articles will be accepted in any of the Content Areas supported by the journal. A special topics issue on Evolution in the Classroom will be published in September 2009. Closing dates for submissions will be announced in the next issue.
INFORMATION FOR AUTHORS

The Journal of Effective Teaching is an electronic journal devoted to the exchange of ideas and information about undergraduate and graduate teaching. Articles are solicited for publication which address excellence in teaching at colleges and universities. We invite contributors to share their insights in pedagogy, innovations in teaching and learning, and classroom experiences in the form of a scholarly communication which will be reviewed by experts in teaching scholarship. We are particularly interested in topics addressed in the particular Content Areas described at this site, including empirical research on pedagogy, innovations in teaching and learning, and classroom experiences.

The Journal of Effective Teaching will be published online twice a year at the web site http://www.uncw.edu/cte/ET/. All manuscripts for publication should be submitted electronically to the Editor-in-Chief, Dr. Russell Herman, at jet@uncw.edu. Articles will be reviewed by two to three referees.

Manuscripts for publication should:

- Follow APA guidelines (5th Edition).
- Include an abstract and 3-5 keywords.
- Typeset in English using MS Word format and 12 pt Times New Roman
- Articles/essays on effective teaching should be 2000-5000.
- Research articles should be 3000-8000 words.
- Tables and figures should be placed appropriately in the text.

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Letter from the Editor-in-Chief

Russell L. Herman†
The University of North Carolina Wilmington, Wilmington, NC

This is our third issue of the new format for The Journal of Effective Teaching. We have had over fifty submissions in less that a year and a half with an acceptance rate of about 29%. The published articles have ranged over topics from designing rubrics, critical thinking and memorization to issues in the use of technology, such as plagiarism, blogging, and online teaching. There are many other issues that face the university instructor and we would like to hear more in future issues. We hope you enjoy the articles in this issue and that you will also go back and read articles in the previous issues. These might inspire you to think about your teaching and how you might be able to share with us scholarly articles on hat you and your colleagues are doing to improve your teaching in university classes.

In this issue you will find discussion about using blogs and introducing research methods into the classroom. We have another article on the design of rubrics, which is something we all might be doing, though not in a rigorous way. There are also some specific topics in using children’s literature or Talking Drawings to enhance communication in the classroom. These articles exhibit the variety of teaching methods and tools that others are using to enhance their teaching.

We mostly aim at publishing articles in the areas of Effective Teaching and the Scholarship of Teaching. We are particularly interested in the listed topics, including empirical research on pedagogy, innovations in teaching and learning, and classroom experiences. Contents Areas are described at the journal site: http://www.uncw.edu/cte/et. We hope to publish special issues devoted to special topics in line with the journal mission. Any suggestions from our readers are welcome.

Special Issue on Teaching Evolution and Darwinism in the Classroom

Next year is the bicentennial of Darwin’s birth (February 12, 1809) and the 150th anniversary of the publication of On the Origin of Species (November 24, 1859). Many will be celebrating these events and there will most likely be a lot of discussion in classrooms about the impact of Darwin’s work both in the sciences and beyond. Considering the recent controversies in public schools and in the media, this topic may lead to questions as to how to effectively teach a diverse student population and the public about the science, the philosophy, and the history of evolution and Darwinism in our society.

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Next year we are planning a special issue of *The Journal of Effective Teaching* devoted to the teaching of evolution in a university setting. We will be soliciting articles for this issue beginning late this year consistent with the mission of this journal. This issue will be in addition to two issues containing regular articles. The articles will be subject to the normal peer review process and we welcome submissions from university instructors in a variety of disciplines. We do emphasize that we seek articles on effective teaching at the university level. We will be posting specific criteria and content areas specific to this special issue in a future Call for Papers.

For example, these topics may include: Darwinism in the history and philosophy of science, politics, and religion; Evolution and the nature of science; barriers in the understanding of evolution; strategies for teaching controversial issues related to evolution and/or Darwinism; educational research in the teaching of evolution; challenging preconceptions in the classroom; and, engaging students who have strong religious views in scientific investigations as part of a liberal arts degree.

We are looking forward to working with new authors on this special issue and will welcome your contributions to the journal. A Call for Papers will be forthcoming.
The Disposable Blog: Using the Weblog to Facilitate Classroom Learning and Communications

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Abstract

This article describes two case studies: one is from a graduate course in social work practice evaluation taught by the second author; the other is from an undergraduate political science course in media and politics taught by the first author. These cases describe the way blogs, created by students and the professors, facilitate communications within the class, reduce paperwork for the professors, and let students practice their “public voices.” While the cases are specific to two courses — Masters-level social work and undergraduate political science – the concepts are easily transferred to others. The article begins with a history and literature review of blogs used pedagogically; next, the reader is walked through the creation of a blog using currently popular online tools; the next two sections are devoted to the two cases; and the final section attempts to draw some generalizations about using blogs in the classroom.

Keywords: Blogging, disposable blog, social work, political science, practice evaluation, pedagogy.

History and Literature Review of the Pedagogical Blog

The blog, begun in the first days of the World Wide Web as a tool for elite computer scientists, has become, over the course of fifteen years, a wildly popular medium for personal expression, for sharing all kinds of news, for editorializing and conducting public discourse.

Blog is a “portmanteau” word, the conflation of web and log (Wikipedia Contributors, 2008). A blog is a frequently-updated website, usually built around a certain theme and expressing the personal opinions of one or several contributors. Each time an entry is posted, the previous entries are automatically archived, so a visitor can browse by date or topic to get an idea of the direction of the discourse, or to look up a past posting. At one extreme, a blog may be nothing more than a list of links to other sites that the author considers of interest to readers (See, for example, “DRUDGE REPORT 2008®”); at the other, it may be a personal diary with few or no links at all (Seth Godin's popular blog is a good example). Some blogs may have multiple authors, and may be open to comments only from certain readers, or from all readers, comments which may create parallel narra-

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The Journal of Effective Teaching, Vol. 8, No. 1, 2008, 3-12
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tives. “Trolls” are interlopers whose only purpose is to disrupt dialogue and debate with *ad hominem* attacks and “colorful” language (Damoclese, 2004).

The first blog was created in 1992 by mathematician and cybernetic engineer Tim Berners-Lee while working at CERN, the particle physics laboratory in Geneva, Switzerland. It was called “What’s New,” and was intended to share technical information among scientists around the world and keep track of each new website that went online (“Tim Berners-Lee”; Berners-Lee, 2000) This was before the existence of powerful search engines such as Google. The National Center for Supercomputing Applications took over “What’s New” in 1993, then Netscape did so in 1996. Then, according to David Winer (2007), one of the earliest bloggers, “The Web exploded, and the weblog idea grew along with it.”

A recent study by the Kaiser Family Foundation found that 32 percent of American youth between the ages of eight and eighteen already have a blog or a webpage (Rideout, Roberts and Foehr, 2005). These offer information of varying utility, including links to resources; more and more such sites function as small bibliographic archives. While the impact of the political blog may have been over-emphasized in the American popular press, it is difficult to explain the rise of Howard Dean and his ultimate ascension to Chair of the Democratic National Committee, the primary victory of Ned Lamont over third-term incumbent Joseph Lieberman in 2006, the resignation of CBS anchor Dan Rather, the demise of former Senate Majority Leader Trent Lott, or the more recent fundraising successes of Republican Presidential candidate Ron Paul without reference to online activists and partisan bloggers. (Rainie and Horrigan, 2007; Hindman, 2005; Kerbel & Bloom, 2005; Rainie, Cornfield and Horrigan, 2005; Welch 2003; Malcolm 2008). This “many-to-many” communication, as Dan Gillmor (2006) calls it, reallocates power, and if it has its limits – Dean was not the Democratic Party’s nominee in 2004 and Paul seems unlikely to win the Republican nomination in 2008 – it nonetheless suggests the possibility of a transformation in communication, the ultimate import of which is difficult to grasp.

The blog also offers opportunities for transformation in the classroom. Previous research suggests that an array of other forms of experiential and blended learning approaches can improve students’ substantive knowledge of policy (Anderson & Harris, 2005), bolster their confidence in their ability to affect change and their willingness to try to do so (Rocha, 2000; Hamilton & Fauri, 2001), and further enrich their commitment to political activism and the pursuit of social justice (Weiss, Gai & Cnaan, 2005). Further, small-group blogging can build community and encourage interaction and engagement that might otherwise not take place; create space for students’ voices to emerge when they otherwise might not; and foster collaboration with their colleagues (Dickey, 2004; Oravec, 2003). Other preliminary research suggests that younger men and women find electronic communications more comfortable, even more “authentic” than other forms (English-Leuck and The Silicon Valley Cultures Project, 2003). The Pew Internet and American Life Project reports that 93 percent of youth 12 to 17 use the Internet “and more of them than ever are treating it as a venue for social interaction—a place where they can share creations,
tell stories, and interact with others.” (LenHart, Madden, Macgill, & Smith, 2007, p. 2) Fifty-five percent use online social networking sites such as MySpace and FaceBook.

While research about the uses and effectiveness of blogs is limited and, at best, suggestive, there is reason to believe that the blog is a pedagogical tool with significant potential for “deep learning” (Bartlett-Bragg, 2003).

**Blogging in the Classroom: Getting Started**

At least two websites, Blogger.com (now owned by Google) and Blogstream.com, make blog creation simple enough that students can set up professional-looking blogs in less than ten minutes. Such software, which resides online rather than on the student’s computer, has come to be called “cloudware” (Anderson, 2007, p. 12). There is no charge for its use, and no transmission of credit card numbers or other personal data that sometimes discomfort users. The user creates an account with a password, chooses a template and color scheme to personalize it, and creates content, which can include, in addition to text, pictures, music, and video clips from sites such as YouTube. These are “disposable blogs” because they are easily created and deleted.

**Case 1: Using the Blog to Closely Monitor Student’s Understanding of Assignments**

The second author frequently teaches a Master’s level course in single-subject research and practice evaluation. The students in the course evaluate their practice by measuring some problematic aspect of their client’s behavior, first a baseline and then the behavior as it responds to a planned intervention. If the students gets off on the wrong foot, and the mistake is not discovered until the midterm paper, the project must be restarted and often completing it in the short time remaining becomes a test of professorial ingenuity. In order to avoid this, each student creates a blog during the first class and records his or her activities there. The professor, who maintains a master-list of the blogs, can dialogue with each student individually, assuring, during the first month of class, that he or she is on track. It is, in effect, a way of peering over the students shoulder, and providing a gentle nudge when needed. In this case, the blog facilitates communication, organizes the flow of paperwork, and becomes a virtual filing cabinet, an automatic date stamp, and an auditing device. The second author initially tried to do this with a University-controlled online course content system. Because it was designed to fulfill a number of functions—a repository for reading materials and syllabi, an email client, test-administering software, an online gradebook, and so forth—it performed none of them easily or gracefully. The students felt burdened by it, they reported with frequency. Blogs, on the other hand, were rated more positively because they were designed around one simple function—self-publishing—and also because the student enjoyed a sense of ownership of the blog, having designed and created it.

Because the course is taught in a computer lab, the students were guided through the blog creation process step by step, recognizing that one of the principal stumbling blocks for students using new technology is the lack of such “walk-through” instruction. Of the eleven students in the class, seven set up their blogs successfully during the first class and
left brief posts. The following week, members of the more technically adept group helped the second group get on-line, and clarified some misunderstanding about the operation of the blog. The professor set up a spreadsheet with links to all of the students’ blog addresses and once a week clicked through them, leaving feedback in the “comment” section. The student had the opportunity to respond to the comment if it stimulated discourse. At the end of the semester, some students opted to print out their work before deleting their blogs.

Unlike an ordinary blog, where readership is desired, these blogs had to be configured to discourage outside readers, since maintaining client confidentiality was an important concern. Students were encouraged to use meaningless numeric sequences for blog names and passwords, and were regularly reminded to disguise any information about the agency or the client that might result in a reader identifying them.

Most of the students were intrigued by the use of blogs and enjoyed the assignments. Choosing their own templates and color schemes gave them a sense of ownership, and an opportunity to express themselves creatively. The possibility of providing nearly immediate feedback in the form of blog “comments,” particularly during the beginning of the semester when they were unsure of how to proceed, was particularly valuable.

The disposable blog is a potential medium for any assignment that requires students to keep a log, diary, or journal. Among its virtues: it will never get lost; if students have laptops and network connections, they can make entries anywhere a connection is available; the instructor can read them online at any time he or she chooses and leave comments at the end of each posting; the instructor will be aware early in the semester if the student is having difficulties with the course and provide a remedy before it is too late; other students can read postings and leave their own comments, if appropriate to the assignment; the instructor doesn’t have to remind students to bring assignments to class; and, because students don’t know when the instructor will be reviewing their writing, there are incentives to keep their blogs up to date.

In sum, the blog was used as an enticement to the students, as a way of closely monitoring the student’s understanding of the coursework, as a means of organizing paperwork and a quick way to provide feedback. Overall, it served as a simple and effective means of managing assignments, and could be used similarly in a broad range of courses and subjects.

**Case 2: Using Blogs to Encourage Students to Enter into Public Discourse**

The first author of this article took a very different approach, using blogs to provide an actual experience of presenting political opinion in a public form. Given the responses by students when told of what they would be doing for the course, this was an exciting, if daunting, experience for them given the growing importance of the political blogger. He sought to encourage students to think about the varied roles of “Mainstream Media” (CNN, New York Times), traditional narrow-cast media (The Nation, The Weekly Standard, talk radio), and “New Media” (web news, political blogs, YouTube) in part to un-
pack questions of where political ideas come from, how they become part of a “national conversation,” and how the dissemination or repetition of ideas affects beliefs and opinions. A related goal was to learn something about how online communities form; how they behave; how they develop, share and disseminate ideas; and what impact they have beyond the narrow confines of their participant-community: what we might call a form of social network analysis. How better to understand this ephemeral phenomenon than to encourage the construction of an online community and track its development?

This work took place in a unique institutional setting. Because our University observes Judaic law in the undergraduate colleges, the undergraduate campuses are sex segregated. The first author taught one section of the course at the women’s campus in the morning, and then again for the men in the evening. Thanks to the blog, however, students formed a single, integrated, online community outside of the classroom. It was a way to examine gender diversity and an opportunity to observe whether the dialogue would differ if both men and women participated. (His experience tends to confirm what the academic literature suggests: single-sex education has benefits for women, and few for men) (Mael, Alonso, Gibson, Rogers & Smith, 2005; Umbach, Kinzie, Thomas, Palmer, & Kuh, 2004). This might also serve as a beneficial technique for instructors teaching multiple sections of the same course, granting them similar abilities to create an online community for all students enrolled.

The professor prepared his own blog a few months before the first class meeting. In the beginning his skills were minimal. By the time the semester began, however, he was more than competent to offer students guidance on how to build and customize their own blogs, and later, how to add pictures and graphics, and embed videos, site counters (to track how many people visit the site, and from where), and RSS feeds (an automated means of delivering blog content to a reader’s computer).

The professor had emailed registered students over the summer with a link to his webpage, a copy of the syllabus, and the link to the “master” blog. A week prior to the first class meeting, a handful of students had already completed the first assignment – creating their own blog and posting to it at least once. By the second class, all students save one had built a blog and posted to it. The most difficult and time-consuming aspect of creating the blog, students discovered, was choosing an appropriately clever blog name.

The master blog included supplemental class materials, links to sites for research and for breaking political news, relevant other websites, or personal opinion and analysis pieces. It also contained a master-list of links to each student blog, serving as a kind of main menu for accessing the project. Students could easily navigate back to the master blog and, from there, locate the blogs of any of their classmates to see how others handled the assignment (plagiarism would have been obvious to the instructor, since every post has a time- and date-stamp; see also Oravec 2003), or find their way to the professor’s academic web page in order to find a copy of the course syllabus, syllabi from other courses he teaches, his CV, links to supplemental course readings, or copies of exams.
Since our previous experience with Internet Course Management Systems (we had used both Blackboard and Angel) suggested that getting students to use the technology might be a problem, both carrots and sticks were employed: posting to their own blogs was mandatory, and two specific assignments were due each week, which together accounted for a full fifty percent of students’ final grade.

To encourage students to read their colleagues’ blogs and to respond to the ideas presented there, he made such activity a required part of some week’s assignments; for those who regularly posted on their colleagues’ blogs, extra credit was awarded. Even so, the number who did so and the frequency with which they did it were small, until the last few weeks of the semester, when online dialogues and debates began to appear with some frequency. To encourage students to attend to more advanced blogging techniques, such as adding links to other sites, embedding video excerpts, and off-setting extended quotations from cited materials, he informed them on the first day of class that their Final Exam would also be posted online, and that form would count for a substantial portion of their grade. This opened up space to discuss the manners in which different kinds of writing have different rules, not just depending upon the audience, but upon the technology used to disseminate ideas. Since assignments were tied to course readings and topics for class discussion, he would often begin class by visiting a student’s blog post on the subject, and letting that serve as a jumping-off point for discussion and debate. Some students, as one would expect, devoted significantly more time and energy to each assignment than others, but those students often uncovered commentary or video that improved the richness and timeliness of materials under discussion, and gave them genuine opportunities to contribute to the shape and direction of the course. As the semester wore on and they grew more accustomed to producing work for public consumption, a number of students encouraged friends and family to read their ongoing work. This too, we think, improved the quality of students’ work, since they knew it was not only their professor who would read it. Some eventually opened up to even larger communities. By the middle of the semester, word of what the class was doing had started to spread. Students who were not taking the course began posting their responses, and colleagues were stopping the professor in the hall to say “I read your blog. I liked the article about . . . .”

Student posts tended often to be rather long, and this was the first time the professor found students apologizing with such frequency for writing so much, and noticed with many students whom he had taught in previous classes that their writing style seemed more fluid and clearer. Perhaps the medium itself, because it was more familiar and less intimidating, didn’t compel students to feel as if they had to adopt an overly-stylized kind of writing (which they often do, emulating the worst of the academic prose they’ve been exposed to). But because it is less stylized does not, to our minds, make their written work less thoughtful. For the most part, students’ writing was clear, concise and often funny. On balance, the medium itself seemed to have facilitated their ability to communicate. That said, many of their initial posts were self-conscious and tentative, and prompted lots of “is this what I’m supposed to be doing” sorts of questions.

The professor posted comments, albeit usually brief ones, on each blog posting by students. This was perhaps the aspect of the course most in need of change. It was impossi-
ble to append grades to each post, since it was a public forum and the goal was not to embarrass students. All this resulted in a heavy workload for the instructor.

**Evaluating the Results**

Our experience with disposable blogs was positive. The blog was an effective means of managing course materials and for students to manage assignments, a useful tool in any professor’s kit. In both the official college student evaluation forms distributed every term and a separate evaluation instrument distributed by the instructor, students frequently described the course with such words as “engaging,” “involved,” “hands-on,” “thought-provoking,” “stimulating,” “interactive,” and “participatory,” descriptors that had rarely been used in previous evaluations. That engagement carried beyond the classroom, moreover: students in the second case study took it upon themselves to organize a multi-media Media Workshop for other students; one started a “watchdog” website about the student newspaper; another has been urging the university president to launch his own blog; and the majority reported that they intended to maintain their blogs in the future (although the evidence so far suggests that few will).

In both cases students who seemed indifferent or antagonistic to assignments involving internet-based course management systems like Angel or Blackboard seemed to enjoy executing the same kind of assignments on a blog. Anecdotal evidence suggests that it was because they exercised ownership and felt in control of the blog, and because they felt engaged in a cutting edge activity.

As one of the Case 2 students wrote in her course evaluation:

> “I liked the fact that instead of hard copy write ups, blogs [presented] endless possibilities. . . . The writing was lighter and more alive with links, pictures, and let us go where we wanted with it. The comments section enables us to share our insights w/ our colleagues. . . . I would like to [continue blogging]. We are at the forefront of a new era in new media and it feels good to be a part of it.”

Reported others:

> “It was a hands on learning approach that directly related to what we were learning, although I see the value in doing blog work for non-media related classes as well; it is less structured than papers and more creative/personal thought based.”

> “[I liked the] lack of formality, sense of community. It was different and thus more fun. I was able to illustrate my points by use of video, sounds and pictures that I can’t do in a paper.”

> “It’s more relaxing than having to write papers all the time – yes it had to be substantive, but it was a little more relaxed and fun – you can’t put videos on paper. . . . I was able to do more and express myself.”
“It was a great way to post an opinion if you’re too scared to in class.”

Blogging is a tool that should be more fully and thoughtfully incorporated throughout the curriculum. Students are online with ever greater frequency, and it is through that medium they are accessing information and interacting with each other. As we have noted, preliminary research suggests that students may find electronic communication more “authentic” than other forms (English-Leuck and The Silicon Valley Cultures Project, 2003), and the cases reported in this paper confirm that. We do note, however, that blogging (and other forms of online interaction) are not without risks for students and for the instructor; the first author began the semester with a review of what might constitute “objectionable” material that should not be posted; cautioned them to think carefully before posting personal information; laid out ground rules for civil discourse; and offered students tips on how to effectively manage any Trolls visiting and posting to their sites (see also Romero 2006; University of Illinois 2007).

The value of these kinds of projects, which can admittedly be labor intensive and involve a modest degree of comfort with new technologies, is not only that they encourage formulating and organizing ideas, and dialogue and debate, but that they make students take more responsibility for their own learning. They are putting their own thoughts out into “cyberspace,” where anyone might happen upon them. Some of the fascination with blogs is the possibility that one’s words will be read by world policy makers, artists, practitioners, and pundits. This, in our experience, encourages a healthy competition among students for excellence and originality.

References


Experiencing the Research Process in a Single Class Period

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Abstract

Books and courses on research methods, statistics, or both, often necessarily focus on one topic at a time. This compartmentalized approach prevents students from seeing the big picture. To address this shortcoming, I developed an exercise through which students experience the whole research process in a single class period. From posing a question, through devising a method, collecting and analyzing data, to writing the report, students conduct all aspects of a basic research project. After the experience, students reported a significant increase in their understanding of the research process. In addition, students recommended using the exercise in future classes and at other universities. I end by discussing various ways that the exercise can be adapted to other class situations and content areas.

Keywords: Scientific method, research process, statistics.

Tell me and I'll forget. Show me and I might remember. Involve me and I'll understand. – Unknown

The chapters in most texts, whether books on research methods, statistics, or both, focus on one topic at a time. A typical introductory research methods book has chapters on descriptive methods, experimental methods, ethics and single case and quasi-experimental designs (Shaughnessy, Zechmeister, & Zechmeister, 1999). A typical introductory statistics text covers such topics as central tendencies, variability, z scores, probability, sampling distributions and hypothesis testing, and various parametric and nonparametric statistics (Gravetter & Wallnau, 2004). Introductory statistics texts seldom show how a statistic is prescribed by the methods chosen, and introductory methods books rarely show how methods limit the statistics used. Although combined research methods and statistics books do some integration of methods and statistics topics, such books are typically divided into large methods and statistics sections (e.g., Heiman, 2001).

The compartmentalized approach is maintained as teachers’ curricula often mirror that of the textbooks they use. Indeed, one could argue that the novelty and the difficulty of methods and statistics concepts require addressing the topics one by one. Add students’ anxiety about statistics and methods to the newness of the topics (Onwuegbuzie, 2004), and this segmented approach seems logical, if not necessary.

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The downside of this approach is that students often fail to see the big picture. Although they may understand the different aspects of the research process, they do not always understand how these seemingly disparate pieces fit together. Thus, one of the many difficulties in teaching statistics and research methods is helping students appreciate how statistics and research methods connect within the research process as a whole.

Another difficulty is actively engaging students in statistics and methods. We know that students benefit from active learning (Chickering & Gamson, 1987) and that they prefer it (Bonwell & Eison, 1991). Furthermore, teachers acknowledge that actually conducting research is essential to students’ understanding of statistics and research methods (Smith, 1998; Snee, 1993; Yoder, 1979). The exercise I present actively engages students in research by having them conduct it. Through the exercise, students experience the research process from start to finish in a single class period, and thereby experience the big picture.

In addition to providing a global view of the research process, the exercise meets two other objectives. One is the opportunity to experience and solve the problems that a researcher encounters while engaged in research (Smith, 1998). Introductory textbook descriptions of research and teachers’ examples do not always convey the mundane difficulties one experiences in devising and conducting research. However, experienced researchers know that problems such as sampling errors or missing data are part of the research enterprise and that mistakes such as poorly operationalizing variables or collecting unusable data are common for beginning researchers. In their first efforts, students inevitably make mistakes that they must try to rectify (Felder & Brent, 2003). By encountering and overcoming obstacles in the research process, students actively learn lessons, and lessons actively learned are lessons remembered (Chickering & Gamson, 1987; Keeler & Steinhorst, 1995).

The other objective of the exercise is to develop the seeds of mastery. Because students have learned about research without doing it, they have no reason to feel efficacious -- to believe that they, too, can be researchers. Many approach their statistics and methods courses with trepidation that lingers (Onwuegbuzie, 2000, 2004). Even those who become confident in their understanding of the individual concepts may think themselves incapable of successfully engaging in the entire enterprise. This exercise provides an opportunity for success. Students and their classmates experience all the basic steps of a research project, and in so doing, discover that they all can be researchers.

**Method**

I taught a research methods course that was the second quarter of a two-quarter statistics and methods sequence. Although students had exposure to statistics and pieces of the research process, they had not yet put the pieces together. To address this shortcoming, I developed an exercise that gave students the opportunity to experience the entire research process in a single period. I conducted the exercise on the first day of the research methods course.
Procedure

I randomly assigned students to work in groups of three. Randomly assigning students provided the opportunity to review random assignment (vis-à-vis random sampling), and prevented self-selection into groups of distinctly different ability levels (see Cumming, 1983). Though students often have mixed feelings about group work, I emphasized that the research process is almost always collaborative.

Each group developed three testable research questions, with the ultimate goal of choosing one as the question that they would answer. The criterion for the questions was simple: Students were to ask questions for which they could collect empirical data on or around campus in the next hour. They were to state their chosen question clearly in a sentence. If the question implied a relation among variables, then they were to state the question in the If: Then: Than format of a hypothesis. One such question was, “If people enter the east door of the student union, then they will be more likely to buy a coffee than people who enter through the west door.” Some other questions were as follows: “If people grew up in a metro area, then their political views will be more liberal than those of people who grew up in rural areas.” “Most people know someone who has been diagnosed with depression.” Students in my course had all had introductory psychology where they learned the scientific method. Most also had had one or more content courses (e.g., abnormal, developmental, social) and knowing the content helped them come up with psychological, interesting questions. However, the hypotheses did not necessarily have to relate to psychology per se. Another example question was, “How many buildings are there on campus?” At first blush, a question about buildings seems absurdly simple, but many methodological issues arose when answering it (e.g., operational definitions of “building” and “on campus”).

Students had approximately 8 min to develop their potential questions (Step 1). The time allocations are suggestions, and are laid out in Table 1. With the exceptions of bringing students together for step 2 and the final discussion, students typically worked through the steps at their own pace, spending more time than suggested on some steps and less on others.

After time had elapsed, students met as a class, and each group proposed one of their three hypotheses (Step 2, 15 min). The entire class critiqued the hypotheses and made suggestions for improvement. Often these criticisms and suggestions concerned practicalities: How was the group defining the variables? How were they going to gather and track their information? When their favored question provided too many stumbling blocks, groups turned to one of their other questions. I facilitated the discussion but provided little direction, letting students supply the feedback, and letting each group settle on the single question they wished to answer. Although potential problems were evident (e.g., inclusion of a hard-to-define variable), I chose to let students proceed and discover their problems and solutions through the process. In classes where students are not yet familiar with research ethics, the teacher may have to guide question selection more.
Table 1. Steps in the Research Exercise

<table>
<thead>
<tr>
<th>Step</th>
<th>Activity</th>
<th>Time Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>Question development</td>
<td>8 min</td>
</tr>
<tr>
<td>Step 2</td>
<td>Hypothesis selection</td>
<td>15 min</td>
</tr>
<tr>
<td>Step 3</td>
<td>Operationalize variables</td>
<td>5 min</td>
</tr>
<tr>
<td>Step 4</td>
<td>Method development</td>
<td>5 min</td>
</tr>
<tr>
<td>Step 5</td>
<td>Data collection</td>
<td>20 min</td>
</tr>
<tr>
<td>Step 6</td>
<td>Data entry and analysis</td>
<td>10 min</td>
</tr>
<tr>
<td>Step 7</td>
<td>Results interpretation</td>
<td>10 min</td>
</tr>
<tr>
<td>Step 8</td>
<td>Preparation of brief report</td>
<td>10 min</td>
</tr>
<tr>
<td>Step 9</td>
<td>Sharing with the class</td>
<td>20 min</td>
</tr>
</tbody>
</table>

Note. The activities and times indicated are suggestions. The instructor may modify the steps and time allotments as they choose.

After selecting a question, groups solidified how they were going to operationalize the variables of interest (Step 3, 5 min). As they thought about how to measure the variables, students thought about how they would track and analyze the data they intended to collect. During this and subsequent steps I was available for guidance, but encouraged students to work with each other.

Students then devised their plan for gathering their information (Step 4, 5 min). They pilot tested or tried out their methods on other groups and made adjustments as time allowed.

In the fifth step (20 min), students gathered the information using the methods they had decided upon in the third and fourth steps. Some groups were able to collect their data from people in class and the surrounding area‡. Other groups needed to go to specific locations on campus.

Two members of the group were to serve as the information gatherers, and the third was to “observe the observers.” Although everyone was to conscientiously record their observations, the observer of the observers acted as the recorder of the process and documented issues or problems that arose. He or she was also assigned to critique the information gatherers and note any concerns that emerged. I specified the time that students were to return to the classroom.

After data collection, students brought their data to the computer laboratory for analysis (Step 6, 10 min). Most students used the SPSS program available on the computers in

‡ I consulted my university’s Internal Review Board before conducting my research exercise. The IRB determined that further IRB approval was not necessary because the data were for in-class use only. If there are IRB concerns at other universities, students in fields that work with human subjects can collect their data by surveying or observing classmates.

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our laboratory. For classrooms without student computers, one or two laptops with access to statistical software or a computer spreadsheet program could be provided. Alternatively, the teacher could limit the studies to designs where complex statistical analysis is not necessary.

In Step 7 (10 min), students interpreted their results, answering their questions. They were encouraged to present a table or graph if they thought that it would help the reader understand their findings.

Students then incorporated their results into a short research report (Step 8, 10 min). Each report included the question the students chose and why, their clearly stated hypothesis, how they gathered and tracked their information, how they analyzed their data, the results, and their conclusion (i.e., the answer to their question or hypothesis). Of key importance was the final paragraph in which students described the issues that arose during their study: What were the problems that they encountered and their solutions? What did the "observer of the observers" notice? How might they do things differently if they were to repeat the study?

After students submitted their reports, the class reconvened to talk about their research (Step 9, 20 min). This shared reflection turned out to be a very important part of the process, as students talked about their problems and solutions and learned how their classmates overcame theirs. My role was to lead the discussion, making connections between groups’ experiences, reminding them of definitions, and suggesting alternative solutions.

**Results**

One week later, students (N = 15) completed a short questionnaire. Students responded to the 9 items on Likert scales, typically ranging from 1 (not at all) to 7 (very). Means and standard deviations for all survey questions appear in Table 2.

A dependent samples t test comparing their self-reported understanding before the exercise to their understanding after the exercise was highly significant, \( t(14) = -5.292, p < .001, M_{\text{Before}} = 4.53 (SD_{\text{Before}} = 1.19), M_{\text{After}} = 5.87 (SD_{\text{After}} = .74) \). Students found the exercise to be both interesting and useful. Furthermore, students recommended that the exercise be used in this course in the future and in courses at other universities.

Students’ comments support the impact and value of the exercise. “I found the project to be challenging and also fun and interesting.” “Broke down the steps/processes well.” “Exposed me to the research process, very hands on and applicable knowledge.” “Did a great job applying all the concepts we learned last quarter.” “I feel like I have started a good background in research.”
Table 2. The Means and Standard Deviations of Participants’ Responses to Survey Questions

<table>
<thead>
<tr>
<th>Survey Questions</th>
<th>M</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>How interesting did you find the exercise?</td>
<td>5.93</td>
<td>1.10</td>
</tr>
<tr>
<td>How useful was the exercise in helping you understand the research process?</td>
<td>5.47</td>
<td>0.92</td>
</tr>
<tr>
<td>How would you rate your understanding of the research process before the exercise?</td>
<td>4.53</td>
<td>1.19</td>
</tr>
<tr>
<td>How would you rate your understanding of the research process after the exercise?</td>
<td>5.87</td>
<td>0.74</td>
</tr>
<tr>
<td>How helpful was it to have class help you evaluate your potential questions?</td>
<td>5.73</td>
<td>1.28</td>
</tr>
<tr>
<td>How useful was it to have the &quot;observer of the observer?&quot;</td>
<td>4.93</td>
<td>1.59</td>
</tr>
<tr>
<td>How useful was the practice of operationalizing the variables?</td>
<td>6.00</td>
<td>0.76</td>
</tr>
<tr>
<td>Would you recommend that this exercise be included in this course in the future?</td>
<td>6.40</td>
<td>1.06</td>
</tr>
<tr>
<td>Would you recommend this exercise to professors at other universities?</td>
<td>6.27</td>
<td>1.10</td>
</tr>
</tbody>
</table>

Note. Students responded on 7-point Likert scales from 1 (not at all) to 7 (very). Students’ understanding of the research process after the exercise significantly differed from their understanding before the exercise, \( p < .001 \).

Discussion

Taken together, the results suggest that the students found the exercise to be valuable, for themselves and potentially for other students and professors. Not all students cared for the “observer of the observers” (see Table 2). It is one thing to provide feedback along with others in class and another to be the one criticizing one’s group members. In future iterations of the exercise, the observers recorded everything they saw, but did not record their evaluations of their observations. In discussion, reporting what they saw revealed the problems, while taking away the sting of criticism.

The class that participated in this initial exercise was small and the class period was long (2 h). I have since successfully replicated the exercise with larger classes and with shorter class periods. With larger classes, four or five students can be placed in small groups, or several groups can be randomly selected to present their potential research questions or final results to the class.

With shorter classes, I placed limits on the steps or omitted steps altogether. For example, I limited students to producing and sharing one research question, limited research questions to those that can be answered in the classroom by surveying or observing classmates, or limited the time allotted for the steps. In other short classes, students orally presented their results, bypassing the creation of written reports. For classes short on time, statistical knowledge, or computer access, students can provide only descriptive results such as frequencies or averages from their studies. I have found that having a somewhat limited amount of time is actually beneficial in that it induces students to work quickly and efficiently.

In longer classes, more time can be allotted to the steps and professional reporting standards (e.g., American Psychological Association style) can be expected in the report. The exercise can also be stretched across two class periods, with question development
through data collection on one day (steps 1 through 5), and data analysis, interpretation and presentation on the next (steps 6 through 9).

Although the class that gave feedback on this exercise already had a large knowledge base (over a quarter of statistics), I have used this exercise on the very first day of class of a two-quarter statistics and research methods sequence and a colleague used it successfully at the beginning of a statistics course (L.S. Wagner, personal communication, November 7, 2006). Students (alone or in pairs) follow the steps, skipping steps 2 (initial class feedback) and 6 (SPSS). They gather data from their classmates and in the end report what they have found. Students get an overview of the research process, make mistakes that they are unlikely to make again, and begin to feel like the researchers they can be.

The exercise is not meant to be students’ only experience with the research process. Ideally, students would experience the research process often, and occasionally on a larger scale, where they investigate questions in the extant literature, derive appropriate methodology for their hypotheses, seek Internal Review Board approval, select appropriate samples, and so on until completing professionally formatted manuscripts. Although some undergraduate programs provide research experiences for all of their students, many do not. In addition, the majority of undergraduate programs do not have integrated research methods and statistics courses (Messer, Griggs, & Jackson, 1999). For those programs that do not offer full research experiences and integrated methods and statistics courses, an exercise like the one I offer allows students to experience the whole research process. Professors are encouraged to adapt the exercise to their class topic, size, and time, and to repeat the exercise as their schedule allows. As students’ understanding becomes more sophisticated across the quarter, so do their questions and statistical and methodological approaches.

Although this exercise was designed and tested in psychology statistics and research methods courses, the outline of the process is applicable to statistics and methods courses in any subject area. Indeed, questions need not be domain-specific for the process to be meaningful. In analogous areas (i.e., the social sciences), students working in groups can create testable questions, or the seeds of questions that the class can help them develop, from the content learned in introductory courses. In the “hard” sciences (e.g., physics), teachers may want to provide an array of basic equipment around which questions should be devised. In any discipline, a teacher may want to circumscribe the questions or the data sets that students can use. Providing a list of possible topics to pursue or data sets around which to develop questions affords some limits while allowing students choice.

However other teachers choose to modify the exercise, I encourage them to maintain the suggested beginning and end – allowing students to choose their questions and having students share what they learn. I believe that encouraging students to pursue their own ideas leads to greater investment in the exercise. In my statistics and methods courses I use a variety of class experiments and activities that, while successful, never engender the excitement that this approach to the research process does. I believe that the other key piece to the success of this exercise is discussing what is learned, both from the studies

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conducted and from the exercise. The process of sharing provides a chance for students to realize what they have learned and to learn from the mistakes and successes of others.

Incorporating exercises that actively engage students in the entire research process combats students’ compartmentalized conceptions of research and shows them the big picture. In addition such exercises afford opportunities for students to experience and solve the problems that researchers encounter, and in the end, to discover that they all can be successful researchers.

References


A Tale of Two Rubrics: Improving Teaching and Learning Across the Content Areas through Assessment

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University of Colorado Denver, Denver, Colorado

Abstract

This is a story of two different assessment rubrics, similar in design but different in content area and pedagogical context. One rubric is from a course in the College of Arts and Media in an advanced painting class; the other is from the College of Architecture and Planning in a landscape architecture studio design class. Each rubric is described and the ways in which each rubric supports teaching and learning is discussed. These two rubrics are intended to be examples for other faculty to emulate as well as evidence of the role that rubrics can play across many different fields and disciplines. The article concludes with a description of the steps in designing a rubric and a process for using rubrics for course and program improvement.

Keywords: Rubrics, assessment, teaching, learning, higher education.

Assessment rubrics, or guides for scoring student performances, work in a number of ways to advance student learning in higher education (Wolf & Stevens, 2007). They not only improve assessment quality (Arter & McTighe 2001), they can also enhance teaching and learning (Stiggins 2001), with particular potential for non-traditional, first-generation, and minority students (Delpit 1988). In addition, rubrics can be a vital component of an effective outcomes assessment system, contributing to program improvement and university accreditation (Angelo 2002).

Sometimes the relationship of assessment to teaching and learning isn’t always obvious to faculty, few of whom have had formal pedagogical or assessment training. While faculty members are experts in their subject matter and can implicitly describe basic to advanced proficiency in their students, developing explicit rubrics can help faculty better understand the role that assessment can play in promoting learning. Rubrics clarify the interdependent relationship of assessment and teaching and learning—the relationship of what students are expected to learn, how well they are learning it, and what can be done to further promote that learning. While formats can vary, a rubric is essentially a matrix in which the learning outcomes (e.g., written communication) are listed down the side and the levels of performance (e.g., proficient) across the top, with descriptions of the performance for each outcome at each level described in the cells of the matrix (see Table 1).

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Table 1. Rubric format

<table>
<thead>
<tr>
<th>Performance Levels</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Basic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Criteria</td>
<td>Description of performance</td>
<td>Description of performance</td>
<td>Description of performance</td>
</tr>
<tr>
<td>Criterion A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criterion B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criterion C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criterion D</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This first section of this article introduces two different rubrics from two different fields and the contexts in which they were created, along with a discussion of their implications for teaching and learning. These two rubrics, similar in design but different in content areas, are intended to be examples for other faculty to emulate, but also to provide evidence that rubrics can be productively employed across many different fields and disciplines. The following sections then briefly highlight the scholarly literature on the topics of assessment and rubrics, describe steps in designing a rubric and suggest a process for course and program improvement through rubrics.

**Tale of Two Rubrics**

The two rubrics presented in this section share the same basic format but focus on two different fields within the university. Mary Connelly, an assistant professor in the College of Arts and Media, describes the rubric that she developed for assessing her undergraduate students’ advanced painting portfolios. Ann Komara, an assistant professor in the College of Architecture and Planning, describes the rubric she developed for assessing her graduate students’ studio design projects in landscape architecture.

The institution in which these two professors work is a research university located in an urban setting with twelve schools and colleges spread across three downtown campuses. The downtown campus, where these two programs are located, has approximately 4500 graduate students and 8300 undergraduates, many of whom are non-traditional, first-generation, and students of color.

**A Rubric for Assessing Painting Portfolios in the College of Arts and Media**

The students in Mary Connelly’s undergraduate advanced painting class in the College of Arts and Media were asked to prepare a portfolio of their paintings, along with related work such as a sketchbook and reflections on their learning. The rubric used to assess their portfolios is presented in Table 2.
Table 2. Rubric for advanced painting midterm review

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Outstanding 4 points</th>
<th>Proficient 3 points</th>
<th>Evolving 2 points</th>
<th>Below Expectations 1 point</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inventiveness (25%)</strong></td>
<td>Shows high degree of risk-taking by testing new approaches; researches and utilizes new approaches to enhance work; expresses a unique, personal style and voice.</td>
<td>Demonstrates some risk-taking and experimentation; ideas are researched and gathered from different sources; starting to take an independent direction and style.</td>
<td>Not taking risks in process or ideas; does not research or seek multiple visual sources to approach work from several angles; holding too closely to an established style.</td>
<td>Risk-taking and experimentation are not evident; supporting research is missing; lacks independent direction.</td>
</tr>
<tr>
<td><strong>Craftsmanship (25%)</strong></td>
<td>Demonstrates a high degree of knowledge; presents work in a highly professional manner; always seeking to learn more about the medium and tools to improve expertise.</td>
<td>Skilled with and knowledgeable of tools and materials; presents work in a professional manner; carries out research on methods and materials of his/her craft.</td>
<td>Demonstrates incomplete knowledge of and mastery of tools; presentation of work is not professional; neglects research of craft.</td>
<td>No or little evidence of craftsmanship; work habits appear disorganized; care and use of materials and tools appears haphazard and unaligned with project.</td>
</tr>
<tr>
<td><strong>Productivity (25%)</strong></td>
<td>Produces more than 10 paintings in the semester including studies and drawings for major works; highly focused in class; actively seeks input from instructor and peers.</td>
<td>Produces the minimum of 10 paintings in the semester; begins several directions, but not able to finish all works; reluctant to engage regularly with instructor and peers.</td>
<td>Produces less than 10 paintings in the semester; has difficulty in getting started in class or does not attend; shows no consistency in working styles; does not engage with others.</td>
<td>Produces few paintings; has difficulty in getting started in class or does not attend; shows no consistency in working styles; does not engage with others.</td>
</tr>
<tr>
<td><strong>Sketchbook (10%)</strong></td>
<td>Exceeds 70 pages; Contains drawings from life, includes ideas for paintings; includes multiple studies of one or more master artists.</td>
<td>Meets the minimum 70 pages; contains drawings from life and ideas for paintings; contains studies of master artists.</td>
<td>Does not meet the minimum 70 pages; lacks ideas for future paintings; insufficient study of master artists.</td>
<td>Sketchbook entries are few; lacks ideas/plans for future painting; master artist studies are missing.</td>
</tr>
</tbody>
</table>

Students in this course are in their final year of a four-year B.A. or B.F.A. At this advanced level, emphasis is placed on independent investigation of technical, formal, and conceptual issues in painting. The students are also expected to explore professional goals in painting by doing research into exhibition opportunities in local galleries and investigating the option of doing graduate work for the Master of Fine Arts degree. Meetings with guest artists and visits to galleries and museums, required in addition to studio...
activity, are critical at the advanced level to help students develop an individual direction and professional attitude.

The format of the class is self-directed studio work, critiques, and intensive tutorials. The committed student will work in the studio 15 hours per week as a minimum, including class time. By semester’s end, each student is expected to create a body of ten paintings and related drawings. Individual and group critiques are the cornerstone of the class, with an emphasis on critical dialogue that challenges students through interactions with other artists and their peers. Art historical research is a major expectation; students must give an oral presentation to the class, and be capable of articulating in written and oral manner the critical issues in historical and contemporary traditions of painting, placing their own work in context to this history. The development of individual artistic direction, or “voice,” as evidenced by conceptual invention and discovery, is one of the central goals of this course.

Though she initially resisted the idea of rubrics as too rigid for assessing creative process, Mary decided to try rubrics as a way of making her assessments clearer and fairer. She reports that changing her assessment practices has made her grading more consistent and defensible. According to Mary, a rubric provides her students with detailed descriptions of the levels of development that she expects. As a communication tool, she contends the rubric encourages active learning and the artistic development of students by providing a framework for assessing process and product as well as the development of a self-reflective studio practice. The rubric also serves as an outline of her teaching philosophy—making clear her role as a facilitator to actively engage students in their own learning though hard work, creative inquiry and skilled execution.

The portfolio rating constitutes 85% of the grade for the course, with the remaining 15% based on additional writing assignments. In Mary’s rubric, an “outstanding” rating for the portfolio translates into an A grade, “proficient” is a B, “evolving” is a C, and “below expectations” can be either a D or an F.

Several features of Mary’s rubric are important to note. The criteria for the performance—“inventiveness, craftsmanship, productivity, and sketchbook,” are listed down the side. Note that each of these criteria has been further explained by three key attributes. In the case of “inventiveness,” the student “a) demonstrates knowledge and mastery of tools and materials, b) presents work in professional manner, and c) researches contemporary and historical approaches to craft.” Also note that the different levels for the performance are described across the top—“advanced, proficient, evolving, and below expectations.” The information in the cells themselves more fully describes key features of the performance for each criterion at each level.

The rubric for this course, then, is intended to capture the spirit of the learning experience and make clear the expectations for students’ performances through the four criteria for assessing the painting portfolio. While creativity is greatly valued in Mary’s rubric, so too is craftsmanship and a committed studio practice. From Mary’s perspective, investigation into a variety of media and knowledge of the work of master artists, past and pre-
sent, nurtures creativity and informs a painter’s choices and direction. As well, productivity is a valued outcome, for Mary believes that students will need perseverance and drive to succeed as a professional artist. Both perspiration and inspiration are necessary ingredients in advancing students’ learning. The nature of that creativity and productivity are conveyed in the descriptions in the rubric itself. Students’ active engagement and discovery as reflected in their sketchbooks is a vital feature of the learning experience in the studio classroom and an essential life-long practice as professional artists. Thus, the rubric not only strengthens Mary’s assessment of her students’ work by making the criteria for her ratings and their alignment with the assignment and course outcomes clearer, the rubric also guides students in reflecting on their own work and in building a portfolio that better demonstrates their learning and prepares them to become practicing artists.

**A Rubric for Assessing Studio Projects in the College of Architecture and Planning**

The second example is from Ann Komara’s studio class for first year graduate students in landscape architecture. The semester consists of two major projects - a mid-term and final – each evaluated through similar rubrics, with a few additional short exercises assessed with checklists. The rubric used to score their final design project is presented in Table 3; a similar rubric was used for mid-term assessment. For this major final assignment, students were to prepare and present a design project, including products developed along the way to demonstrate a design process. The students were expected to build on the lessons from mid-term to accomplish their work for the final.

Ann’s design course is the required foundation studio that introduces students to the three-year master’s degree in landscape architecture program. The program attracts students from varied backgrounds, so there can be no assumptions about knowledge bases in the field. She coordinates the course, which she co-teaches with two other studio faculty; they rotate through the students over the course of the semester. The course syllabus states:

> Through engaging concept, language, form, and consequence in the context of landscape architecture, students develop strategies for reading local, regional, and global landscapes. In this class they will be introduced to strategies for understanding and manipulating the landscape as the locus of spatial, temporal, physical, cultural, sensory, and perceptual phenomena and processes. In addition, students will be required to develop their skills in oral and graphic presentations pertaining to designs, ideas, and places.

The rubric evaluations emphasize the course goals through process, product and presentation.

The format of the class is individual studio work facilitated through desk critiques, with some team and partner work. The successful student will work in the studio a minimum of 18 hours per week, including 9 hours of class time. Individual and group critiques with faculty, their peers, and visiting designers foster an ongoing dialogue about the design.
Table 3. Rubric for midterm studio design project in landscape architecture

<table>
<thead>
<tr>
<th>Midterm Review LA5500</th>
<th>Implemented/Integrated (4-5)</th>
<th>Developing (2-3)</th>
<th>Absent/Emerging (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concept:</strong> An abstract, generative idea that expresses or leads to predicates for design; the point of beginning, or the potential basis for design exploration</td>
<td>The conceptual idea(s) are clearly expressed, original, and robust. They respond to site and contextual factors, and are well developed and reflected in many aspects of the design. The student explained their design process and the genesis and evolution of the concept, including the mapping work.</td>
<td>Conceptual idea(s) are sound, and are clearly stated. The idea(s) are richer rather than limited, and offer possibilities for developing the design. The student can explain their idea and provide some details to explain the evolution of the idea, with some mapping explained.</td>
<td>Conceptual idea(s) are absent or minimally identified. Student exhibits poor understanding of how to derive conceptual ideas, and cannot explain a process for developing and testing the idea. The mapping work was not strongly integrated into the project’s concept or execution.</td>
</tr>
<tr>
<td><strong>Language: Graphic</strong> The representation and communication of ideas through visual (graphic) media</td>
<td>All components are present and legible, and the sheets are composed to effectively communicate the design and ideas. Site plan and sections are rendered. Concept images support the design. Work is innovative and shows exploration of ideas.</td>
<td>The sheets and individual drawings are complete but may still warrant further rendering or revisions. The composition of the sheet is addressed. Work is competent and demonstrates developing skills.</td>
<td>The drawings are incomplete (parts missing or not rendered) and/or the components are difficult to read. The sheets are poorly composed. The work lacks visual development and depth.</td>
</tr>
<tr>
<td><strong>Language: Oral</strong> Effective spoken and written communication of design ideas and the related appropriate use of design language</td>
<td>The presentation is dynamic, smooth and well delivered, with clear points and a logical flow. The speaker used their time well, and employed effective, expressive, and appropriate language. The boards included titles and used well-written text to explain the ideas.</td>
<td>The presentation is coherent and makes clear points about the work. The language is clear and supports the presentation. Student may not have used the time well, but was generally in command of the presentation. Some text/titles appear on the sheets.</td>
<td>The presentation is unfocused and lacks coherence. The speaker paid little or no attention to the audience and did not adhere to the time limits. The speaker failed to speak to their work. There was little or no text or title on the boards, and/or text/titles were poorly written.</td>
</tr>
<tr>
<td><strong>Form: Model</strong> A three dimensional product created to communicate spatial aspects of the design, with attention to materials and detail</td>
<td>The design is spatially developed and clearly articulated. The model demonstrates scale and shows design responses including treatment of edges, and the use of contours or a shaped ground plane. Materials are well chosen and the model is well crafted. Study models are shown.</td>
<td>The model demonstrates a developing grasp of spatial relationships and expresses the concept. Edges and ground plane are addressed but may not be resolved. The model materials are well chosen and the craftsmanship is good. Study models might be shown.</td>
<td>The spatial ideas are unresolved, and the design exhibits little or no attention to edges or to the shaping of the ground plane. The model materials are ineffective in supporting the design intentions, and/or the model is poorly executed. No study models are shown.</td>
</tr>
<tr>
<td><strong>Form: Design</strong> The organization and resolution of the design; the intentional shaping of parts into specific relationships</td>
<td>The design supports the concept. It is appropriately scaled, with clarity and intention evident in the arrangement of the parts. A potential visitor’s experience of place is understood, evident and developed.</td>
<td>The design supports the concept. Scale is somewhat addressed. The arrangement and relationships of parts are intentional, but could be further studied. Potential for human experience is understood.</td>
<td>The design is unresolved, with no clarity to parts or their relationships. Scale issues are not understood. There is no evident understanding of a visitor’s experiences of place.</td>
</tr>
</tbody>
</table>
The format of the class is individual studio work facilitated through desk critiques, with some team and partner work. The successful student will work in the studio a minimum of 18 hours per week, including 9 hours of class time. Individual and group critiques with faculty, their peers, and visiting designers foster an ongoing dialogue about the design process and outcomes. Central to studio investigations are questions that pertain to how landscapes are understood, represented, revealed, and shaped. Although students build their knowledge of these traditions in the other core classes required in the first semester, they are expected to bring this knowledge to bear in studio. Supporting this development, studio periods occasionally include lectures and presentations exploring issues of landscape architecture design, representation, and experience.

Ann, too, was skeptical about rubrics and their usefulness for evaluating creative expression. After developing and using rubrics specifically designed for the two projects, she felt that the rubrics contributed to several positive changes. Grading the students became more consistent between the three studio teachers, and the teaching team found it easier to discuss the student projects through the clarity of the shared professional language of the rubric. More broadly, Ann asserts that using the rubrics mitigates the studio tradition which relied heavily on personal aesthetic judgments about student work. This constitutes a significant shift – the role of the “studio master” is deeply entrenched within design training, and although there have been shifts since the 1990s to studio instruction as a guided inquiry, the dominance of the “expert” persists in studio teaching (Malecha, 1993). While the project assessments still require a faculty member’s professional expertise, the value of the rubric is the framework of criteria and categories denoting a common ground of values and goals.

This basis holds for both students and faculty. The rubrics provide studio students with detailed descriptions of the key categories of emphasis and the levels of development; they also support the faculty as facilitators who actively promote student understanding and engagement with design as process and product. As a communication tool, Ann asserts that the rubric encourages active learning and growth for students by providing a shared professional language and a framework for self-reflection in assessing process and products in the development of a studio practice. The rubrics helped students develop an ability to discuss and critique their work and the work of others, which is a fundamental skill required in the profession. This outcome was enhanced by the faculty’s use of the rubric as both formative and evaluative tool building from mid-term to final.

The mid-term rating constitutes about 35% of the grade for the course, with the remaining grades based on the other assignments; the final juried presentation and products are about 50% of the grade reflecting a cumulative assessment. Rubric evaluations occur during studio juries when students make presentations to a group of visitors who comment on the work; the guests often include professionals from the community, visiting faculty, and peers. Because of the importance of the mid-term for both the students’ grade and their development, the studio teachers also meet individually with each student. Students are asked to self-evaluate using the rubric; in many cases, they review a video recording of their jury review to help them reflect on their presentation and work. Then the teachers and student discuss the outcome and strategize for ways to improve based on the criteria.
of the rubric, the student’s performance and goals, and the curriculum learning goals. Thus, the mid-term rubric helps establish guidelines for the student’s development as a designer, and sets the base for expectations for the final.

From the faculty perspective, the rubrics help “neutralize” these important discussions, shifting the focus away from individual as “right or wrong” to emphasize instead the goals, projects, and outcomes. Ann reports a significant increase in student satisfaction with their evaluations at both mid-term and final. This is evidenced at the faculty-student meetings, where it was quite common to hear comments like, “I see my improvement in ‘some area’ and know what I want to work on for next time.” She also noted that there was a much greater convergence between student and faculty scores at the final than there had been at mid-term; she suggests that this reflects an increasing comfort with and knowledge of the design process, products, and languages of presentation. She thus asserts that the rubric directly contributes to a positive learning outcome.

Examining Ann’s rubric shows the relationship between course goals and student achievement. Five performance criteria topics, drawn from the syllabus and treated as equal in importance, line the left-hand side of the form; across the top of the form are the performance levels, with point values from zero to five.

The text describing the various criteria reflects several important aspects of designing a rubric. Each “topic word” is supported with a definition that aligns faculty and students in a common language; this also gives clarity to the category objectives. The text for the performance level outcomes uses parallel ideas to make comparison easier. For instance, under “Concept” the language in the first sentences for each performance level describes conceptual ideas as “clearly expressed, robust, and original” [implemented and integrated]; “sound and clearly stated” [developing]; or “absent or minimally identified” [absent or emerging]. This parallel structure is evident throughout the rubric. Finally, although the language used is grounded in the discipline of landscape architecture, it has enough clarity that the rubric made sense to colleagues from other fields. Ultimately, it allows the students access to the discipline in a non-exclusive way that supports their beginning work.

The State of Assessment and the Role of Rubrics

Assessment and accountability have become increasingly significant topics of conversation in higher education (Palomba & Banta, 1999). The accountability movement has been driven in part by politicians’ and the public’s concern about the rising cost of college and a desire for more and better evidence of student learning, while the assessment emphasis has been prompted in part by the higher education community’s search for more effective ways to promote learning for an increasingly diverse student body (Shavelson, 2007). Adding to the push are the higher education accrediting organizations who now ask institutions to demonstrate effective outcomes assessment systems as a requirement of accreditation (Wolf & Goodwin, 2007). Assessment of student learning is becoming increasingly prominent across all disciplines and fields (Banta, Lund, Black, & Oblander, 1996). Undergraduate education, and the general education portion in particu-
lar, has been receiving the most attention, including from the federal government where there is currently a push to put in place standardized tests of undergraduate learning (Shavelson, 2007).

Assessment, however, is about more than assessment per se. Assessment experts describe a cycle that begins by clearly articulating learning outcomes, designing and implementing sound assessment approaches, analyzing and interpreting assessment results, and making course or program improvements guided by the assessment information to better advance student learning (Miller, 2007).

Assessment approaches include direct measures of learning such as exams and performance assessments, and indirect measures such as student knowledge surveys or national surveys of student attitudes. Assessments can be course or program based, or designed by faculty or national organizations. Performance assessments, such as portfolios or demonstrations, which use student activities or products as opposed to tests or surveys to evaluate student knowledge and skills, can effectively capture and even promote learning, but they are particularly difficult to assess as well. A valuable way to strengthen the assessment of these complex performances is to fold rubrics into the assessment process (Wolf & Stevens, 2007). Rubrics make the learning target more visible to students, better enabling them to hit it, especially if they are given the rubrics in advance of undertaking the assignment. Rubrics guide teaching by highlighting for both students and teachers the key concepts in the assignment or course. Rubrics make the assessment process more accurate and fair. Rubrics provide students with a tool for self-assessment and peer feedback. While rubrics are not a panacea and they are time-consuming to construct, they can offer these benefits and more (Arter & McTighe, 2001).

**Designing Effective Rubrics**

The three main steps in designing a rubric are: 1) identifying performance criteria, 2) setting performance levels, and 3) creating descriptions of performances for each criterion at each level (see Table 1). For a fuller description of these steps and a discussion of the benefits and limitations of rubrics, see Wolf & Stevens (2007) in the *Journal of Effective Teaching* (www.uncwil.edu/cte/et/articles/Vol7_1/Wolf.pdf). While the two rubrics in the present article focus on the studio arts, included in the aforementioned article is an example of a rubric for assessing a small-scale social science research study. Assessment information and examples of rubrics for other disciplines and topics can be found at various websites, such as the site on assessment maintained by North Carolina State University (www2.acs.ncsu.edu/UPA/assmt/resource.htm), another more specifically on rubrics in higher education by Winona State University (http://www.winona.edu/air/rubrics.htm), and another with multiple rubric examples maintained by Exemplars (www.exemplars.com/resources/rubrics/assessment.htm), a company that provides assessment tools for schoolteachers.

With each of these three steps in designing a rubric there are considerations. For example, in the first step of identifying the criteria for a performance (e.g., spoken and written communication), three to six criteria typically work best so that students can keep the
main concepts in mind as they are preparing their projects, and faculty can keep the same
criteria in mind when grading the performances. If there are more than seven criteria,
people typically can’t keep all of them in mind at the same time when viewing or evaluat-
ing a performance; if there are less than three criteria however, they are usually too global
to generate feedback specific enough to guide learning. To further clarify the criteria,
sometimes it is useful to identify several attributes that operationalize or define each cri-
terion. For example, note in Professor Mary Connelly’s rubric for assessing her students’
painting portfolios how for each criterion (e.g., productivity), she presents three attributes
(i.e., produces sufficient amount of work, uses class time effectively, seeks input of in-
structor and peers).

The next step is to decide on the number and names for the performance levels. A com-
mon format is to have three levels of performance such as basic, proficient, and ad-
vanced. In setting performance levels, typically three to five work best. Having only two
levels (essentially pass/fail) does not allow faculty members to give nuanced feedback or
assign grades to the performance based on the rubric. But when there are more than five
levels, faculty members can have trouble reliably distinguishing among performance lev-
els. On a ten-point scale for example, the distinctions between a seven and eight can be
hard to capture in a way that people can reliably apply them.

Writing the paragraph descriptions of performances for each criterion at each level is es-
sential but challenging. The goal is to write brief descriptions that capture the essence of
the performance. As pointed out by Professor Ann Komara, the paragraphs should be
written so that they are roughly parallel across performance levels to better allow com-
parisons to be made between levels such as “proficient” and “advanced,” for example.
Note that these descriptions can be in bullet form rather than paragraph form. Paragraph
descriptions promote a more holistic and integrated view of the performance while bullet
point descriptions better allow an analytical view of its separate parts. In writing the
paragraph descriptions, most instructional designers recommend focusing first on the
qualifications for a “proficient” performan
cer—essentially describing the features of a
performance that demonstrate that the studen
t has meet the expectations for the assign-
ment, and then creating the descriptions of performances on either side of “proficient.”

A word about grades: the relationship of rubric levels to assignment or course grades isn’t
always straightforward for a number of reasons. If desired, a rubric with five performance
levels can be designed to directly correspond to an A-F grading system for an assign-
ment, but in a graduate course, for example, in which most students would be expected to
get an “A” or a “B” on major assignments, three levels (e.g., superior, mastery, needs im-
provement) might be adequate to describe the performances with the lowest level re-
served for the infrequent “C,” “D,” or “F.” In this case, the instructor would need to dis-
tinguish among these “needs improvement” performances in assigning a grade, and then
provide more customized feedback to these students. In other situations, a rubric may
respond to percentages that are used to determine an overall course grade. And, in
some instances, course grades may be based on more than rubric scores on major assign-
ments and may include additional information such as student participation in class and
completion of homework.

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In general, a rubric is most effective if everyone can quickly learn and internalize all of the key features of a quality performance, and that is best achieved if the rubric can be presented on a single page or two. Furthering strengthening the power of the rubric is to have several descriptions, or even actual examples, of projects on a variety of topics at different performance levels available to students for review.

**A Process for Putting Rubrics in Place**

To increase the likelihood that the rubrics that are developed will be on target, it is helpful for faculty to clarify the learning outcomes, identify the relevant learning experiences, create quality assessments, and then design the rubrics. These steps are intended to better ensure that the rubrics are aligned with and support the course or program goals.

First, have faculty clarify the learning outcomes for the assignment, or for the course and program more broadly if appropriate. The question to be addressed is: What should students know and be able to do? This step can take a few hours or several working sessions. Faculty members sometimes realize from these discussions that they don’t have shared understandings or that what they want students to learn hasn’t been sufficiently defined.

Next, have faculty members in a program list all of the learning opportunities for students in the course or program (e.g., courses, labs, studios, internships), and then indicate which key outcomes are addressed through each of these learning opportunities. Displaying this relationship between learning outcomes and learning opportunities in a matrix format (i.e., curriculum mapping) can help highlight instances in which students are asked to demonstrate a skill but have not been given guided opportunities to learn and practice it. Common examples of outcomes that are valued, or even assessed, in a course or program but rarely directly taught, are “the ability to work in teams” or “a passion for learning.” At this point, faculty need to decide to remove or revise these outcomes or, alternatively, create learning experiences for students to develop the targeted skills.

In the next step have faculty develop key assessments that address one or more of the course or program learning outcomes. These assessments can take the form of a course-based project or test, or an end-of-program portfolio or national exam. These key assessments should capture important features of the valued outcomes for the course or program and be appropriate to the nature of learning being investigated. For example, a multiple-choice exam is not a good match for assessing studio projects, nor is a portfolio typically an effective way to measure breadth of factual knowledge. Sometimes faculty find that for some of the program or course outcomes there are no direct assessments of student learning, and conversations then ensue about whether the outcome is valued or if assessments should be developed to measure student learning for a particular outcome.

Finally, have faculty develop rubrics for scoring student performances on these key assessments. Often, when faculty begin to develop rubrics for assessing key student performance, they re-visit the learning outcomes or the criteria for the performances they are evaluating because they recognize that they are sometimes not as explicit or precise in
describing the outcomes or the assessment criteria as they thought they were. They then go back and forth from the learning outcomes to the assessment criteria until there is good alignment between the two and both clearly express the goals of the program or course. Conversations then arise about how best to teach the concepts or whether to modify the course, setting into motion a re-visiting of all parts of the process from syllabus construction to program design. Once rubrics are thrown into the mix, these consequences are predictable—and desirable.

It is worth noting that although rubrics do not replace the professional judgment that faculty members must draw on in assessing their students’ performances, they can go a long way towards strengthening that judgment and, ultimately, supporting teaching and learning in the process.

References


Reading Outside the Boundaries: Children’s Literature as Pedagogy For Building Empathy and Understanding of Social Justice in the College Classroom

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Abstract

The role of children’s literature in helping children make sense of themselves, their experiences and their worlds either in a classroom setting or in a more therapeutic context has been well documented. What has not been researched as far as we know is the use of children’s literature in the college classroom as a means of enabling students to address difficult topics such as issues of oppression and social justice in a manner that is less overwhelming and less threatening. At one Connecticut University children’s literature was used in numerous classes in both early childhood education and sociology as a means of facilitating student compassion and empathy for others. Whole group read-alouds of children’s literature proved to be an effective tool to help students take the risk of confronting and knowing their own personal views and then make powerful connections to those of others.

Keywords: Children’s literature, bibliotherapy, critical pedagogy, social justice, emotional intelligence, empathy.

“We tell ourselves stories in order to live”
Joan Didion

The Power of Stories

In a sociology class on Deviance at a small liberal arts college in Connecticut, students were shown the film Corrections (2001) that documents the rise in the prison industrial complex and its direct effects on juveniles, and in particular juveniles who are poor and African American. After the film there was a heavy silence as the students attempted to come to terms with what they had just seen and what it all meant in relation to the view that deviance is socially constructed in accordance with levels of social, political, and economic power. It is always difficult and often near impossible to elicit responses when the information given is emotionally and intellectually intense. Students are often left feeling shocked and overwrought and expressing these feelings is challenging and a great

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risk. As Joanna Rogers Macy states in her book, *Despair and Personal Power in the Nuclear Age* (1983) “Information by *itself* [italics in original] can create resistance, deepening a sense of apathy and powerlessness. We need to help each other process this information on an affective level, if we are to digest it on the cognitive level” (Macy, 1983, p.xiiv). Instead of trying to get the students to analyze the film, for the first time the instructor sat down on the desk facing the class and took out a children’s book. The students were instructed to predict what the book might be about based on the title and cover and then to sit back and enjoy its story. The book was Toni Morrison’s *The Big Box* (1999) that tells of three children - Patty and Mickey and Liza Sue - who want to play and be creative and independent and in so doing fail to follow all of the socially established rules. As a result, they end up locked up in a big brown box by their parents and teachers who all agree it is for their own good:

> Patty and Mickey and Liza Sue live in a big brown box. It has carpets and curtains and beanbag chairs. And the door has three big locks. Oh, it’s pretty inside and the windows are wide with shutters to keep out the day. They have swings and slides and custom made beds but the doors open only one way (Morrison 1999, p. N/A).

As the instructor read and held the book so all could see she observed that the students were listening, watching, and seemingly more in touch with their feelings. For example, as one student volunteered, “We’re all in a big box the only thing that changes is the size and our level of freedom. Society wants to control us both inside and outside of prison.” Another student said “I’ve just realized I’m not as free as I thought.” When asked how that made her feel she answered, “Angry!”

What was overwhelming in terms of the political, economic, and social complexity of the prison industrial complex was rendered brutally and powerfully simple in Morrison’s tale. The children who do not conform, not because they are innately bad or even because they never followed the rules as they often did, are punished by being locked away. And even though in this story their box has swings and slides and their parents come to visit them and bring cake and real dirt, it is clear that the adults have misunderstood their simple, yet complex needs and desires: the freedom to be themselves. Such freedom is rare as the children in Morrison’s story learn to recognize:

> “I know you are smart and I know that you think you are doing what is best for me. But if freedom is handled just *your* way then it’s not my freedom or free” (Morrison, 1999, p.N/A).

In later writing about the film *Corrections* (2001) many students referred to the story in a way that was powerful. For example, one student wrote, “In real prisons they don’t have swings and slides but the same concept of control and denying the people to just be is present. The prison system is not about rehabilitation, it is about keeping the monetary tide washing in while lives are trapped in a system and forced into a box.” Another student was able to relate the children in the movie to the ones in the story when she wrote, “The movie stressed that many children are seen as delinquents but when the problem is
looked at closely I see it is because the children have nowhere to go and have clean fun
so they get bored and create their own fun which is often criminal acts. As a result they
are locked up in a big box like in Toni Morrison’s book.”

It was apparent in these class discussions and student written reflections that reading
children’s literature helped these students to make deep connections. It helped them to
discuss their beliefs, experiences, and feelings in a way that was authentic, honest, and at
times raw. Even further, the use of children’s literature allowed them to connect their ex-
periences to those of others, creating the basis of empathy. It seemed the students natu-
urally integrated the complex social forces behind the prison industry and the expressed
of activities that help students to “humanize issues such as violence and gain a deeper
understanding of the diversity of human experience.” (p.14). Encouraging students to ex-
press empathy has historically not been encouraged in college classrooms since activities
of analysis, synthesis, logical reasoning, and debate have been prioritized and revered as
purely intellectual or masculine. However, the pioneering works of such psychologists as
Daniel Goleman, Emotional Intelligence: Why it Can Matter More than IQ (1994) and
Howard Gardner Multiple Intelligence: The Theory in Practice (1993) should compel us
to address Goleman’s call for a “new vision of what schools can do to educate the whole
student, bringing together mind and heart in the classroom” (Goleman, 1994, p. xxiv).

In early childhood literacy classes where students are used to read-alouds it was the criti-
cal discussions around texts that made for powerful new discoveries. While this professor
has always been mindful to read multicultural literature, more explicit discussions on is-
sues of social justice and oppression allowed these students to think more critically and
empathically about their views and biases and their possible transmission to students in
the classroom. In addition, based on their writings and discussions the use of children’s
literature that addresses provocative social issues enabled these early childhood students
to become more aware of their ethical and professional responsibility to work for justice
and to end oppression, both in schools and at large. In fact it was clear in their final port-
folios that many students had become more passionate about social issues and the ways in
which societal stereotypes and discrimination play out in public schools. Most impor-
tantly, they began to view themselves as change agents when confronted with both his-
torical and current examples of racism and oppression as opposed to their initial expres-
sions of “apathy and powerlessness” (Macy, 1983, p.xiv).

To illustrate, after reading Home of the Brave by Allen Say (2002), one early childhood
student stated, “I remember hearing something about the Japanese-American interment
camps that were set up after World War II but it wasn’t until you read that book out loud
that I realized we just did a similar thing after 9/11. Until I felt sorry for the little Japa-
nese-American boy in that book I hadn’t felt concerned at all about how we have been
treating Arab-Americans.” This, a most powerful connection and expression of empathy
and compassion, started a lengthy discussion on how afraid these students were after 9/11
and how it is fear that leads to discrimination. These honest, open discussions stemming
from children’s literature heightened students’ awareness, self-reflection, and compas-
sion. This will allow these preservice teachers to take multicultural education beyond ac-
ceptance to affirmation and make conscious effort towards social justice. As a result of critical discourse stemming from children’s literature, these future teachers are well on their way to becoming critical pedagogues, who take great risks in confronting their own and societal prejudices, and make every effort to help young people understand deep concepts such as racism and oppression.

From Story to Theory

What these education and sociology students are learning is to use their ‘emotional intelligence’ which Goleman (1994) states, “trumps IQ primarily in those ‘soft’ domains where intellect is relatively less relevant for success—where, for example, emotional self-regulation and empathy may be more salient skills than purely cognitive abilities” (p. xiv). These ‘soft’ domains are the ones that a large percentage of our students will enter such as teaching, social work, or any other profession that involves working directly with people. Thus, it behooves us to begin addressing more directly the emotional skills they will need, not simply the intellectual ones. Goleman (1994) stresses this when he states, “if there are any two moral stances that our times call for, they are precisely these, self-restraint and compassion” (p. xxii).

Our efforts on the college level to engage and develop student empathy and compassion through analyzing the social issues addressed in select children’s literature are, as far as we know, unique. However, critical pedagogues working with children to promote antibias and antidiscrimination sentiments in the multicultural classroom (Irwin, 1996) have of course long recognized the power of helping children address and express feelings of empathy. Therefore, it is to their work that we turn for insight and analysis into our experiences. For example, Christensen (1992) in her description of building a multicultural community emphasized empathy as being “a key in community building” (p.14). Her multicultural curriculum draws on the strengths and experiences of her students. This example of affirming students’ cultural capital defies modernistic classroom environments where the value is placed solely on the practices of the dominant culture. Likewise, as college classrooms continue to become more culturally diverse, greater emphasis needs to be placed on more than the intellectual learning about ‘others’. Engaging directly and honestly with oneself and ‘others’ about difficult feelings, such as fears, misconceptions, stereotypes, prejudices, dislikes, etc. must compliment intellectual learning. It is no longer enough for us to merely teach about social justice issues. We must allow our students to actively engage with how they feel about such issues in ways that are non-confrontational and non-threatening. It is only then that students can acknowledge the role they play in being part of the problem as well as feel empowered to be part of the solution.

Lantieri and Patti (1996) in Waging Peace in Our Schools suggest “One of the biggest challenges in moving toward a classroom capable of transforming kids is that as teachers we have to transform ourselves before we can expect to see change in young people” (122). They further state, “we can no longer turn away from the emotional fabric of children’s lives or assume that learning can take place isolated from their feelings” (Lantieri & Patti, 1996: 3). In this manner we feel we, along with our students, need “a vision of
education that recognizes that the ability to manage our emotions, resolve conflicts, and interrupt biases are fundamental skills—skills that can and must be taught” (Lantieri & Patti, 1996: 3). In fact, according to Goleman (1994) such skills are successfully being taught around the country in the form of programs in social and emotional intelligence (SEI). However, based on his examples, SEI is only taught to children “from preschoolers to high school (Goleman, 1994, p.x-xi). Thus, a vital part of our pedagogical mission is to aid our students in developing what Goleman (1998) calls “emotional competence.” At its core emotional competence combines the two abilities of empathy (heart) and social skills (mind). This will enable students to read and be open to others’ feelings on issues that are often socially and pedagogically silenced because of their difficult content. For example, Christensen (1992) eloquently explained the ideology behind what has been referred to as “fear of naming”: “Topics like racism and homosexuality are avoided in most classrooms but they seethe like open wounds. When there is an opening for discussion, years of anger and pain surface” (p.14). Although Christensen is not referring directly here to the college level we feel that her observation nevertheless still applies as our ultimate goal is to get students to name emotions, not just theories. We can’t expect our students to learn the basis of empathy if we as instructors do not establish the safe and open classrooms necessary to encourage critical dialogue. Irwin (1996) purports that the process of becoming nonsexist, multicultural persons is lifelong and entails “learning by listening, asking and being open to others’ perspectives” as well as admitting to our “unconscious biases and the unwitting mistakes that we have made” (136). Obviously these are not easy things for our students to do, let alone us. Especially since the student / teacher relationship has historically been based on the quest for being right, as opposed to being open. Yet, without being emotionally open the most pressing moral issues of our times can’t adequately be addressed.

In addition to self-transformation and the building of confidence to discuss painful issues, the students in both our classes are experiencing first hand that learning is not a passive activity as it requires they engage with their whole being. To do this one must create a non-hierarchical classroom environment that is open to all perspectives and feelings and accepting of diverse experiences. We have found that getting responses from students that display emotional competence is much easier if we use children’s literature as the vehicle as opposed to the required readings that are more theoretical and analytical in content. As one student wrote, “It feels good to be treated as an equal and not looked down upon and to be read children’s literature instead of Harvard graduate authored texts that serve no purpose because of their impossible vocabulary.” Reading our students children’s literature liberates them to be child-like again, and gives them permission to open their hearts and thus their minds.

In Envisioning Literature, Langer (1995) states, "Inherent in the act of literacy understanding is the promise of touching the many-sidedness of human sensibility. It is through the envisionments we develop as we explore new horizons of possibility that we can at least begin to imagine the perspectives or others – in other circumstances, eras, and cultures – and be moved to make new sense of ourselves, our times, and our world" (p. 145).
Likewise, for Goleman the first stage of emotional competence is self-awareness since one’s ability to understand another’s feelings and be empathetic is totally dependent on one’s understanding of one’s own feelings (Goleman, 1994 & 1998). As a result when using children’s literature students must be given opportunities to link the stories to their lived experience (King & Mitchell, 1990) in order to help create a sense of ethical and political responsibility. This was evident in both the examples given from reading The Big Box in the sociology class and reading Home of the Brave in the early childhood literacy class. In this way, we can help our students understand that reading is “not merely a skill; it is an engagement of the person in a conceptual and social world” (Guthrie, McGough, & Wigfield, 1994, cited in Braunger & Lewis 1997, p.3).

Louise Rosenblatt (1938) was one of the first to see literature as therapeutic in this way. She recognized that exposure to personalities in books may lead to increased social sensitivity. This we believe is key to enabling students to know that just as they each desire rights, respect, security, self-determination, community, access to resources, and opportunities, so does everyone. A poignant example involves Jon Muth’s version of the classic trickster tale, Stone Soup (2003) a book about collectivism and compassion as three monks enter a village of individuals who do not get along and through the making of one giant pot of stone soup, are able to demonstrate how much everyone benefits when working together and as a result come to know happiness. After this was read out loud in class one student wrote, “When it comes down to it, it really is the simplest things that hold the most meaning whether it be in the form of literature, nature…but we get caught up in ourselves or other things…we just forget. If we’re fortunate, like the other day in class, someone will remind us just how important it is to return to our humble beginnings to find a long lost or misplaced treasure.” Another student, one with a poor inner city background that he often referred to in class, made a most powerful and almost raw appeal in his journal, “I just wish that every neighborhood and community could have Stone Soup, at least one time.” While the reasons why all neighborhoods and communities don’t have stone soup once in a while involves a complexity of social, political, and economic factors, it is possible that this young man’s wish is the impetus for future action towards equality and more Stone Soup.

**From theory to Practice**

As constructivist teachers we do not want to set any kind of specific methodology for using children’s books in college classrooms as we feel that would be antithetical to the ethos of what we are trying to do. In this manner, as expressed by Paola Friere we share the concern that “the social vision of liberator pedagogy not be reduced to a methodology of teaching, which he believed might strip it of its revolutionary ideas” (Darder, 2002 & Freire, 1998b, cited in Enns & Forrest 2005, p. 17). Furthermore, we believe that “neither feminist discourse nor a discourse on teaching social justice can provide final answers. They can, only at best, provide some wisdom to guide us in whatever choices we have the opportunity to make” (Fisher 2001, p. 220). Obviously there is a vast array of children’s books available and we have no desire to limit those books that other educators feel have a significant and timely message to convey to their students. However, we have selected some that we feel based on our own experiences are wonderfully suited for ad-
dressing specific issues of social justice and oppression. For both of us the choice to use a particular children’s book at a particular time and in a particular way is completely dependent on the needs and energy of the class, the students, and of course ourselves. We see reading children’s stories as a way to change the classroom dynamic by challenging the power relations between our students and ourselves. What we most seek is to give our students the autonomy to go wherever the story takes them. It is imperative that students experience us as active listeners who are there to provide a safe environment, the just-right book, and to facilitate both their thinking and feeling.

Conclusion

Our experiments with and use of selected children’s literature have been an effective means to transform the issue of social justice from being not only a concept of discussion, but more significantly into stories of self as other discovery. It never failed that each and every time a piece of children’s literature was read in class students would write insightful reflections that demonstrated how the text affected their learning about course content, themselves, and the world. So grab a piece of children’s literature, invite them to gather around, listen, and journey together to your “long lost or misplaced treasure.” For it is through every story that we live, learn, and learn to live.

References


## Children’s Books for Empathy and Social Justice

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Talking Drawings as a University Classroom Assessment Technique

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Abstract

Increased focus on assessment of student learning, within college classrooms, has lead many professors to routinely employ classroom assessment techniques as a means to make adjustments in teaching during the instructional process. This article describes a technique, Talking Drawings, which was developed by a high school teacher as a teaching strategy. The authors describe the reconceptualization of Talking Drawings, into a classroom assessment technique, which is appropriate for a variety of uses at the college/university level. The primary purpose of this technique is to provide the instructor with feedback as to the effectiveness of teaching and to find out what students are or are not learning. Illustrated, in this article, is the Talking Drawings classroom assessment technique, examples for application, and procedures for utilization within the classroom.

Keywords: Classroom assessment technique, formative assessment, summative assessment, assessment of student learning, Talking Drawings.

Since the National Commission on Excellence in Education’s report, A Nation at Risk in 1983, there has been pressure for “schools, colleges, and universities to adopt more rigorous and measurable standards” (A Nation at Risk, 1983). The focus on measurability has lead to numerous assessment initiatives within education. One initiative is the focus on the use of both summative and formative evaluation.

Summative evaluations are those that provide information at a particular point in time, such as at the end of a course. These assessments are often used to make a judgment about the student’s progress in relationship to content standards after a particular instructional period is over. Summative assessment is often seen in the form of exam scores, paper grades, course grades, and/or standardized tests.

Formative assessment, on the other hand, refers to assessment that is part of the on-going instructional process and provides information to the student and instructor during the course of instruction. Formative assessment allows adjustments in teaching and learning (Chappuis & Chappuis, 2007).

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Angelo and Cross have written extensively about classroom assessment techniques (CATs), which are valuable formative strategies that have applications across various disciplines (Goldstein, 2007; Eckert, Bower, Stiff, Hinkle, & Davis, 1997; Gaeddert, B.K. 2003; Hawkins, 1993; Mann, 2000; McNair S., 2000). This article will introduce a new classroom assessment technique developed for use in elementary, middle level, and high schools. This technique, like most classroom assessment techniques, is intended to provide the instructor with valuable information about his/her teaching effectiveness. The focus, therefore, is on formative assessment, as it is related to teaching, which allows instructors to evaluate how successfully they are meeting their teaching goals (Steadman and Svinicki, 1998). Instructors using classroom assessment techniques get feedback on their teaching, while the student gets feedback on his or her own learning (Steadman & Svinicki, 1998). The feedback given to the instructor provides “profound knowledge” (Deming, 1986) about which teaching strategies are having a positive impact on student learning.

**Freshman Orientation Case Example**

As I walked the familiar halls of the Humanities Building, I wondered if the students in this freshman orientation class would respond to the classroom assessment technique I had planned to use today. I had heard that this particular class was difficult to engage, and I wanted my guest lecture to go well. Having over twenty years of teaching experience, I felt confident that I had prepared appropriate material for my assigned topic, “Expectations for College Students”. However, I was hoping to engage the students and to give the instructor some feedback from the class. I was relying on one of my tried and true assessment techniques that I initially use when teaching high school students. I originally learned about this technique from an article by Suzanne McConnell in the Journal of Reading in 1993. Over the years, I’ve used it extensively in college teaching and came to realize that it was not only a strategy for assisting learners but also a classroom assessment technique.

Upon entering the room, the twenty-four students were largely quiet. Several students were sitting well to the back of the room with their heads on the desks. I distributed white paper and colored pencils. I asked the students to draw a picture, using a stick drawing, of their idea of the perfect college professor and to label the professor’s characteristics. For example, if their perfect college professor was a good listener, the stick drawing could have big ears with the label “good listener”. I told the students that I would give them five minutes to draw, and we would then share their drawings with the class. I was surprised. The students seemed very interested in their drawings, and several students asked for another minute to finish their drawings. I was very glad to grant this request, because all of the students appeared engaged and were working on the “perfect stick professor”. Next, I asked the students to share their ideas and drawings with a small group. As the students worked together sharing their pictures, the regular professor commented that she was amazed that all of the students were participating. I then asked the groups to share their ideas as I synthesized their ideas and drew a stick professor on the white board. The characteristics and the creativity of the stick professors were incredible. The students suggested the professor wear tennis shoes to represent the profes-
sors’ ability to get the class actively engaged in the lectures. They put a cell phone in the professor’s hand to represent the use of technology and the ability to communicate outside of class. One student, with red hair, suggested that the professor be given red hair, because “all the best professors have red hair”. The class erupted in laughter. In the end, the drawing was very detailed and symbolized thoughtful ideas about college professors.

I then asked the students to turn their drawing over and draw a picture of what a professor would draw if she/he were asked to draw a stick figure representing the perfect college student and to label the characteristics. Again, I gave them five minutes to complete their drawings. After five minutes, I asked the class to describe some features of their “perfect college student”. They began suggesting a number of the same characteristics they put on their drawing of the perfect college professor. They identified traits such as: promptness, active engagement, communication, listening, preparedness, flexibility, use of technology, excitement about learning, and humor. The students began to comment on how the student and the professor looked alike. They both even had red hair. The class erupted in laughter again.

Now, I asked the class to write a short paragraph describing the similarities and differences between their two drawings and how the student they drew represented the expectations for college students. They left their drawings and paragraphs with the regular instructor to allow her to assess their understanding of the expectations for college students. As the students filed out of the room, several of them stopped to talk with me. They commented on how much they had enjoyed drawing and how they could see that the expectations professors held for students were very similar to the expectations that they held for their college professors. All in all, this was a very successful guest lecture, and the regular instructor was very pleased with the amount of feedback she was able to receive from her “difficult to engage” class.

**Culture of Assessment**

During the mid-1980’s, public elementary and secondary schools engaged in reform to improve the quality of students’ learning. An important education summit with the nation’s governors in 1989 resulted in federal legislation (Goals 2000: Education America Act) in 1994. By 2001, President George W. Bush signed legislation, the No Child Left Behind Act, which was a reauthorization of the Elementary and Secondary Education Act of 1965. These pieces of legislation increased emphasis on student outcomes and accountability within the public school system. States were charged with setting standards-based goals for all students, curriculum was aligned with the standards, and assessments were developed to determine how well students met the standards. This accountability movement reflected a major shift within the public school system to focus on outcomes for students instead of inputs into the public school system as a measurement of quality. Assessment became an important means to measure outcomes. These important pieces of legislation formed the contextual framework for an emphasis on outcomes at all levels of education.
The accountability movement in elementary and secondary education was followed by an important report from a commission appointed by Margaret Spellings, U.S. Secretary of education in 2006 entitled, *A Test of Leadership: Charting the Future of U.S. Higher Education* (U.S. Department of Education, 2006). This report discussed access to higher education, cost and affordability, student learning, and transparency and accountability. It was suggested that universities and colleges were accustomed to measuring quality by the amount of resources or inputs placed into the system. The report made strong statements encouraging institutions of higher education to focus on student performance. Since this report was released, there has been thoughtful conversation and direct action by many institutions of higher education focusing on accountability and assessment. One example includes the use of the Academic Quality Improvement Program (AQIP) in higher education, which continually seeks more effective ways to enhance student achievement through careful design and evaluation of programs, courses, and learning environments. Another example includes the National Council for Accreditation of Teacher Education (NCATE), where teacher education programs must monitor candidate performance using a comprehensive and integrated assessment system.

Through legislative action, important recommendations from the U.S. Department of Education, and renewed emphasis from educators and accreditation agencies, a culture of assessment developed that helped institutionalize assessment within all levels of education. Assessment formed the basis for determining how well students reached standards (summative assessment) and helped improve instruction and learning within the classroom (formative assessment). This culture of assessment helped to promote the use of classroom assessment. Although effective instructors have always engaged in meaningful assessment within the classroom, there is renewed interest in specific assessment techniques that better describe students' learning. Within this context, classroom assessment techniques help instructors “find out what students are learning and how well they are learning it” (Angelo & Cross, 1993, p. 4).

**Classroom Assessment Techniques Defined**

Effective instructors intuitively engage in classroom assessment to determine what students know and don’t know so that they can adjust their teaching to improve student learning. For example, if a philosophy professor engages students in a large group discussion about the religion of Buddhism, the instructor will quickly be able to assess the depth of student knowledge by carefully listening to student comments. This informal assessment allows the professor to refocus and tailor instruction to meet student needs. Other classroom assessments could include observation, analysis of student work, and student perception questionnaires. Effective classroom assessment techniques are closely tied to instruction, occur early and frequently, result in adjustment of instruction, and demonstrate to the instructor the current level of student performance or what students learned as a result of teaching. CATs are often used to provide feedback to instructors on the effectives of his or her teaching, but at the same time “allows the student feedback on his or her own learning of the specific content” (Stedman and Svinicki, 1998 p. 13).
Angelo and Cross (1993) suggested the following purposes of university classroom assessment.

- Helps the instructor know what students learn as a result of the instruction.
- Helps determine student misunderstandings or gaps in knowledge so that teaching can be refocused.
- Helps understand different perceptions students may have about a particular idea or concept.
- Helps the instructor improve student learning early with formative assessment, as opposed to later using summative assessment.

Angelo and Cross (1993) also discuss assumptions about classroom assessment that include these ideas.

- The quality of student learning is related to the quality of teaching.
- Teachers need to express clear and explicit goals to students and obtain feedback on the extent to which students are meeting the goals.
- Students need early and frequent feedback to improve learning.

Classroom assessment techniques address the issues related to the increasing pressure in higher education to account for student learning and create a culture of evidence based decision making (Shavelson, 2007). When used as an on-going component of instruction, CATs improve the quality of the student’s learning experience and students feel more involved in the process of learning (Soetaert, 1998). The following is an introduction to one effective and useful classroom assessment technique, Talking Drawings, which can assist university professors in determining what students are learning.

**Talking Drawings Defined**

As illustrated in the case above, the Talking Drawings technique was described in 1993 by Suzanne McConnell (Journal of Reading). The strategy “involves translating the mental images that we develop into simple drawings. The drawings then become the basis for exploring our understanding and a bridge for assisting and enhancing learning” (McConnell, 1993, p. 260). Because student drawings can be used to document and improve both teaching and learning (Drawing on Education, 2008), Talking Drawings allows feedback to both the professor, in regard to teaching, and the student, in regard to learning. Like most classroom assessment techniques, the strategy is a simple method that allows faculty to easily collect information from students concerning their understanding of the content.

The strategy begins by asking students to create a mental image, before they become engaged in the content, either by reading or through lecture. Then, the students are asked to draw a picture that symbolizes their mental image and to label the parts of the drawing. These initial drawings are often very global and lack detail. After the students have learned content information, though lecture or reading, they are asked to draw another picture of their mental image and label the parts of the drawing again. This picture “de-
picts the newly learned knowledge” (Wood & Taylor, 2006, p.1). Finally, the students are asked to write a short paragraph telling how their drawing has changed. Figure 1 illustrates the difference in the amount of detail a student exhibits before and after a lecture on the parts of a flower. The use of Talking Drawings allows the professor to evaluate the student’s background or prior knowledge about a topic, gain feedback on students’ knowledge of the topic after the lecture, and requires the student to reflect on how his/her understanding of a topic changes following instruction. These drawings provide a visible and clear record of learning (McConnell, 1993).

In order to move the Talking Drawings strategy beyond a teaching strategy to a classroom assessment technique, one only has to collect the drawings and use the information to make adjustments in classroom instruction. It is easy to see from Figure 1 that this student grasped the content presented in the lecture on flower parts. Because the information is visual, it can be scanned quickly and misconceptions are easy to identify. The professor is now able to use that information to make adjustments in teaching. The professor might decide that the class is ready to move on to new content, re-teach the content, review the content providing more examples, distribute a handout or other material on the content, or assign on-line readings that will allow students to individually refine their understanding. All of these options allow the professor on-going, formative, assessment data which facilitates mid-course adjustments.

There are significant benefits for the college student as well. For the learners, this strategy provides a visible example of the construction of knowledge. It allows them to check their own comprehension and to adjust their study habits. Students who are unable to add specific detail to their second picture quite easily see that they need to take steps in order to master the content. Coupled with the professors’ ability to adjust his/her teaching or offer additional materials, the student then has the resources available to ensure success in the course.

Talking Drawings Applications in Higher Education

Talking Drawings is a very versatile classroom assessment technique. McConnell (1993) presented ideas for application in subject areas, such as science, social science, geography, and literature. In the area of literature, for example, the students were asked to draw a representation of a literary character, setting, topic, or event from the reading. After reading and discussion, the picture was re-drawn to reflect changes that occur during the evolution of the plot. The following section describes specific case examples illustrating different uses for the Talking Drawings technique.

Literature

I typically assign the book The Secret Life of Bees by Sue Monk Kidd to students to allow them to gain an understanding of racial tension in the South in the 1960s. As part of the class, I asked the students to do a drawing of T. Ray Owens.
In the book, T. Ray is the abusive father of a teen-aged girl, Lilly, growing up in a racial segregated town in South Carolina. The story describes the death of T. Ray’s wife during a marital argument in which she is accidentally shot by four year old Lilly. Throughout the book the readers are left to wonder if the shooter was the child or T. Ray.

Figure 1: Example of Talking Drawings Applied to Flower Parts‡

‡ Students were shown a picture of flower parts from the website, http://www.naturegrid.org.uk/qca/flowerparts.html, as part of the class lecture.
After reading the first few chapters of the book, I ask my students to draw T. Ray. He is often pictured as the villain with an angry expression and labeled with the terms “cold hearted”, “cruel”, “racist”, and “tyrant”. However, in chapter twelve, the author reveals information about the relationship between T. Ray and his wife that makes the reader question T. Ray’s characterization as a villain. It is at this point that I ask the students to draw another picture of T. Ray. I also ask the students to write a paragraph comparing and contrasting their original drawing to the new drawing. After the students have had time to draw and write, I lead the class in a character analysis of T. Ray. I ask them to describe sources of information from the book that supports the changes they made to their drawing of T. Ray. I even ask the students to read aloud specific portions of the book relevant to their drawings. This discussion frequently leads them to the understanding that this character is neither all bad nor all good, and they regularly use the label “sad” and “heartbroken” to describe their new drawing. I collect the pictures and narrative to allow me an insight into the students’ understanding of the changes in the plot and character development.

Undergraduate Education Class

In my undergraduate special education course, Assessment of Students with Disabilities, students often come to class with little knowledge of assessment, other than their own personal experiences. At mid-term, I always see major changes in the level and depth of their knowledge about assessment. On the first day of class, I tell my students to think about their experiences with assessment and taking tests. I then lead them through guided imagery where they visualize their personal experiences with tests throughout their school years and their university experiences. I then tell them to draw a picture of what test-taking or assessment looks like. They are also asked to label the drawing and write a short paragraph describing the picture. We then talk in small groups, and then in a large group about what assessment “looks like”. Often, the descriptions and drawings reflect students taking paper/pencil tests by themselves while sitting at a desk. Some students suggest feelings of inadequacy and nervousness about assessment through their drawings and paragraphs. After this initial discussion, we proceed with readings, lecture, small group discussions, and projects about assessment. At mid-term, this exercise is repeated, and the outcome is very different. Students typically draw many different scenarios, some showing groups of students sitting in a circle engaged in discussion, others showing the teacher asking oral questions to students, and still others showing a student reading aloud to the teacher. The paragraphs that students write reflect these ideas: assessment is multidimensional, major decisions should never be made based on one assessment, students have different strengths, assessment must be fair and free of bias, etc. It is clear that my students have learned a great deal about assessment, and this learning is reflected in their drawings and paragraphs.

Talking Drawings Procedures

Implementation of the Talking Drawings classroom assessment technique is very simple and can be conducted at any point in the lecture or course. The procedure for Talking Drawings typically follows the format below:
1. Prior to formal presentation of the content, ask the students to draw a picture representing their understanding of the topic. Have the students label the important features or characteristics of the drawing.

2. After the students are engaged in learning the content, by either reading, lecture, or both, the students are asked to draw a second picture representing their reconceptualization of the topic. Again the students should label the features or characteristics.

3. Next, the students are asked to write a short description of how their drawing changed between the first drawing and the second drawing.

4. Finally, the instructor will collect the drawings and narratives describing the change in drawings. The instructor can quickly scan the pictures and writings to determine if the students have formed a good understanding of the topic or need additional support. The instructor can also determine the level of support needed.

In a very large class, the instructor might want to use a random sample for analysis. This would allow the instructor to obtain a quick diagnosis of student learning. As with the several classroom assessment techniques described by Angelo and Cross, Talking Drawings responses “can be read, tabulated, and analyzed quickly with limited effort” (1993, p. 152). It is important to remember that this assessment technique should not be overused. It fits nicely with content where drawings are appropriate, but might not be the best fit for all content areas or topics.

Discussion

These case examples illustrate how the Talking Drawings technique can be successful in engaging students while allowing the professor to collect feedback from the students regarding their understanding of content knowledge. The use of pictures and drawings often empowers even the most reluctant student to participate in his or her own learning which allows the learner to become self-aware of their knowledge and the professor to gain insight into what the students are thinking (Fabry, Eisenbach, Curry, & Golich, 1997). The continuous use of Talking Drawings, along with other CATs, allow faculty to monitor student learning, facilitate student engagement, evaluate teaching effectiveness, and move institutions forward in continuous quality improvement (Goldstein, 2007; Soetaert, 1998).

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