Handouts for:

The Fence or the Ambulance:
Are You Punishing or Preventing Plagiarism in Your School?

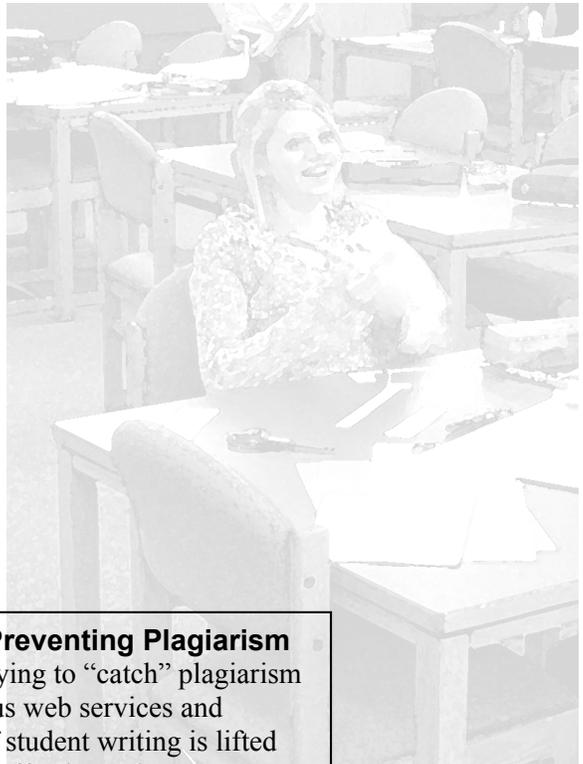Doug Johnson
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The Fence or the Ambulance: Are You Punishing or Preventing Plagiarism in Your School? Too much effort is expended in education trying to "catch" plagiarism in student work. Teachers and media specialists are using various web services and techniques using search engines to determine if or how much of student writing is lifted from online sources. While such tools are necessary and can be effective, educators should also be creating assignments, especially those that involve research, that minimize the likelihood of plagiarism in the first place. This session gives teachers the tools that help them design LPP (Low Probability of Plagiarism) projects that require original, thoughtful research.

Plagiarism-proofing assignments

When I hear the stories of rampant plagiarism being discussed in the media or on the net, an old poem comes to mind. "A Fence or an Ambulance" by Joseph Malins argues that it is better to spend one's efforts on preventing an unwise action (building a fence on the top of the cliff) than cleaning up afterwards (providing an ambulance at the bottom of it).

Much effort is expended in education trying to "catch" plagiarism in student work. Teachers and library media specialists are using various web services and techniques using search engines to determine if or how much of student writing is lifted from online sources.

While such tools are necessary and can be effective, our time as educators is better spent creating assignments, especially those that involve research, that minimize the likelihood of plagiarism in the first place. Rather than making assignments that can be easily plagiarized and then contriving methods for detecting or reducing copying, why not do a little work upfront to design projects that require original, thoughtful research?

This workshop is designed to give you some ideas about you just might do that.

A Fence or an Ambulance
Joseph Malins – 1895 (public domain)

'Twas a dangerous cliff, and it fair scared folks stiff,
But the view from the top was so pleasant,
That they swallowed their fear, and there crashed down each year
Full many a squire and peasant.

"Something's got to be done.", said the people as one,
But answers did not at all tally.
Some said, "Put a fence 'round the edge of the cliff."
Some, "An ambulance down in the valley!"

Debate raged and stormed, and a Study was formed,
And they might have been arguing yet,
But a solution was found: "Let's pass the hat 'round,
And see how much money we get."

A collection was made to accumulate aid,
And dwellers in byway and alley
Gave pounds, shillings and pence - not to furnish a fence
But an ambulance down in the valley.

"For the cliff is all right if you're careful," they said;
"And if folks ever slip and are dropping,
It isn't the slipping that hurts them so much
As the shock down below - when they're stopping."

So for years (you'll have heard) as these mishaps occurred
Quick forth would the rescuers sally,
To pick up the victims who fell from the cliff,
With the ambulance down in the valley.

Then an old sage remarked: "It's a marvel to me
That people give far more attention
To repairing results than to stopping the cause,
When they'd much better aim at prevention.

Let us stop at its source all this mischief," cried he,
"Come, neighbors and friends let us rally,
If the cliff we will fence we might almost dispense
With the ambulance down in the valley."

"He is wrong in his head," the majority said;
"He would end all our earnest endeavor.
He's a man who would shirk this responsible work
But we will support it forever.

Aren't we picking up all, just as fast as they fall,
In giving them care we don't dally?
It's plain that a fence is of no consequence,
If the ambulance works in the valley."

Qualities of LPP (Low Probability of Plagiarism) projects:

1. **LPP projects have clarity of purpose and expectations.** When Mike started his science fair project, he had a good guide at: <www.isd77.k12.mn.us/resources/cf/welcome.html>. On this website are also the forms which would be used to judge (assess) his completed project. An understanding of the scientific method including how to form a hypothesis and how to collect supporting data through experimentation and research is clearly stated as the purpose. This is a life-long, usable set of skills. Science fair students undertake projects worth doing, not just busy work.

2. **LPP research projects give students choices.** Anyone who has ever attended a science fair has to marvel at the range of topics kids are interested in. Good projects surround every aspect of every branch of science from chemistry to physics to biology. Now here is the important concept*: If the purpose of the assignment is to teach the scientific method, it doesn't make any difference what the topic is!* Dig down and look at the core concepts your research assignments are trying to teach, and let the students pick a specific subject that interests them.

3. **LPP projects are relevant to the student's life.** For our students, World War Two and the Trojan War both just seem "a long time ago." By asking her students to interview local residents, the teacher added real faces and lives to history. The stories resonate with those doing the interviewing. So many times we ask our students to research important topics – environmental issues, historical issues, health issues - but fail to help them make the vital connection of why the findings are important to themselves or the people in town in which they live. The delightful "I-Search" techniques used by Macrorie (1998), Duncan, and Lockhart (200) suggest that "the topic should choose you."

4. **LPP projects ask students to write in a narrative rather than an expository style.** Beth's students wrote narratives (biographical sketches) rather than simply recording "facts" about WWII and asked that the results of the research be a narrative of the findings rather an expository writing. The "I-Search" techniques also suggest that students write about not just what they discovered, but the story of how they went about gathering their findings.

5. **LPP projects stress higher level thinking skills and creativity.** Think how different the results of a science project are than a paper that simply asks an "about" question. Hey, Mike, write a research paper about ice. Boring! Instead brainstorm an original theory, design a means of testing it, and find ways to effectively communicate your findings. Suddenly we've moved up on Bloom's taxonomy from the knowledge and inference levels right to application, analysis, synthesis, and evaluation. More fun and impossible to copy.

6. **LPP projects answer real questions.** Mike didn't know at the beginning of his project what really would melt ice the best. His rather creative guess was the laundry detergent (the kind with blue specks) would do the trick. The teacher may have guessed that there was a reason that people pay good money for commercial de-icer, but the fact was, he probably did not know either. It was interesting to watch as the experiment's data grew. Beth had no way of knowing the stories the World War II vets would be telling. Their lives were as fresh and exciting to her as they were to her students. Unfortunately, teachers rarely ask questions to which they do not believe they know the answer. Sort of sad, really. Diminishing to the student; boring for the teacher.

7. **LPP projects involve a variety of information finding activities.** As library media specialists, teachers and parents, we are comfortable with our familiar old primary sources of reference books, magazine indexes, and trade books. Yet the answers to many personal, local, and timely questions cannot be found in them. They can provide excellent background information, but often we need to talk to experts, conduct surveys, design experiments, or look at other kinds of primary sources to get precise information that is meaningful to the individual. The learners in these examples spent time with secondary sources too, but the generation of new knowledge through hands-on experimentation and primary sources was motivating.

8. **LPP projects tend to be hands-on.** Mike's experiment involved using a hammer to pound nails, a camera to document his progress, a computer to generate charts, and scissors and paste to complete the poster board. Beth's students used tape recorders, scanners, digital cameras, and a web page construction program. Students are learning by doing, not just listening. Notice too, how many corollary skills were practiced in these "research" projects: writing skills, interviewing skills, photography skills, layout and design skills, and speaking skills.

9. **LPP projects use technology to spur creativity.** Whether for planning, for research, or for communication, many students find the use of technology motivating. The challenge of designing containers that make good productivity tools like graphic programs, desktop publishers, and web page construction kits virtually the antithesis of copying another's work.

10. **LPP projects use formats that use multiple senses.** Beth's students were asked to communicate their finds not only with words, but through sound and sight as well. Scanned artifacts like ration coupons, medals, and old photographs stimulated those students who may not be verbal learners. Our ability to digitize and present information is no longer restricted to the written word but now can include drawings, photos, sounds, music, animations and even movies. All are formats that carry important and often unique information.

11. **LPP projects can be complex, but are broken into manageable steps.** Mike's science fair project took him over 60 hours to complete and involved dozens of tasks. But early in the project, he and his dad outlined the tasks to be done and established a timeline for their completion. Checking off completed tasks in itself is satisfying and motivational, and Mike learned some corollary planning and time management skills in the process. Large projects can be overwhelming even for adults, but planning smaller steps, building timelines, creating frequent deadlines, and scheduling multiple conferences turn complexity into manageability.

12. **LPP projects are often collaborative and produce results that are better than individual work.** Beth asked her students to work in pairs. Joint problem solving, assigning and accepting responsibility, and discovering and honoring individual talents helped create a synergy that resulted in better, more satisfying web pages than students working alone would have produced. Not every project needs to be a joint effort, but real-world work environments increasingly stress teamwork. Teamwork in school is not only more enjoyable, but leads to the application of practical interpersonal skills as well – and a reduced chance of plagiarism!

13. **LPP projects have results that are shared with people who care and respond.** Science fair participants don't get grades. In Mike's school they don't even get any academic credit. Beth's kids got the same credit as those who took a multiple choice test on World War II. So why do kids go to all the extra work? I believe kids get hooked because big people take the time to really look at the work they have done and comment on it. Lots of other students all gather on science fair day and share their findings. People take science fair seriously. The community, both physically and virtually, visited the student's World War II web pages. Assessments and reviews by peers, experts, and neighbors (any audience beyond the teacher) are common in scouting, athletics, dramatics, 4-H, and music organizations. Knowing others will be looking and may detect plagiarism helps reduce its likelihood.

14. **LPP projects are authentically assessed.** Mike was evaluated on his science fair project using a rubric like the one at <www.isd77.k12.mn.us/resources/cf/rubric.htm>. This more closely resembles the criteria used in assessing a person's performance in the real world. Mike and his dad had the rubric at the beginning of the project and used it several times to check his progress during completion of the project. It was easy to recognize both what was good as well as what needed improvement. Quality indicators like rubrics and checklists that are given to students when assignment is made can help guide learning and keep guesswork to a minimum. As students become more sophisticated in the research process, they should be expected to choose or design their own "rules of quality," one of the indicators of a genuinely intrinsically motivated person.

15. **LPP projects allow the learner to reflect, revisit, revise, and improve their final projects.** While Beth's class had a completion date, students continued to edit and revise their work as they received feedback from those they interviewed and web site visitors. There is satisfaction to be gained from observed growth. Good projects, like gardens, musical repertoires, and relationships, are probably always works in progress. If students misuse information gathered from another source, they should be given the chance to correct the mistake.

16. **LPP projects are encouraged by adults who believe that given enough time, resources, and motivation, all students are capable of original work**. It's not just the talented and gifted student who can make choices, solve problems creatively, and complete complex tasks. These parents, teachers and library media specialists know that most students rise to the level of performance expected of them, and that great ideas can come from anyone in the class.

Resources:
Duncan, D. and L. Lockhart. I-*Search, You Search, We All Learn to Research.* Neal-Schuman, 2000.
Macrorie, K. *The I-Search Paper.* Heinemann Educational Books, 1988.

A Research Question Rubric

Level One: My research is about a broad topic. I can complete the assignment by using a general reference source such as an encyclopedia. I have no personal questions about the topic.
Primary example: My research is about an animal.
Secondary example: My research is about the economy of a state.

Level Two: My research answers a question that helps me narrow the focus of my search. This question may mean that I need to go to various sources to gather enough information to get a reliable answer. The conclusion of the research will ask me to give a supported answer to the question.
Primary example: What methods has my animal developed to help it survive?
Secondary example: What role has manufacturing played in an assigned state's economic development?

Level Three: My research answers a question of personal relevance. To answer this question I may need to consult not just secondary sources such as magazines, newspapers, books or the Internet, but use primary sources of information such as original surveys, interviews, or source documents.
Primary example: What animal would be best for my family to adopt as a pet?
Secondary example: How can one best prepare for a career in manufacturing in my area?

Level Four: My research answers a personal question about the topic, and contains information that may be of use to decision-makers as they make policy or distribute funds. The result of my research is a well supported conclusion that contains a call for action on the part of an organization or government body. There will be a plan to distribute this information.
Primary example: How can our school help stop the growth in unwanted and abandoned animals in our community?
Secondary example: How might high schools change their curricula to meet the needs of students wanting a career in manufacturing in my state?

Activity

Choose a popular research topic from your school's curriculum (or use one from list below). Work with your team to develop an assignment at each of the four levels of the Research Question Rubric.

Your topic:		
Level	**Key attributes**	**Your Assignment**
One	**Asks for simple recall**	
Two	**Asks a specific question**	
Three	**Asks for personal response**	
Four	**Includes a call for action**	

- States
- Diseases
- Current event
- Explorers
- Presidents
- Careers
- The Constitution
- Nutrition
- Simple machines
- Authors

Your Multimedia Presentation Should Include the Following

Your group's task is to present a lesson to the class that tells why a specific even from early American History is still studied today.

Content:

☐ ☐ ☐ 1. In large bold print, label your presentation with both the location and the years of the event. Also, provide clues that locate your picture in time. For example show:
☐ ☐ ☐   a)   proper clothing
☐ ☐ ☐   b)   correct transportation
      c)   tools and weapons
      d)   people doing their daily work

☐ ☐ ☐ 2. Draw pictures of the key events. Clearly illustrate what happened in your area that was so important that we're still studying it today.

3. Include pictures of the main geographical features.
☐ ☐ ☐   a)   rivers, oceans, lakes
☐ ☐ ☐   b)   forests, deserts
      c)   mountains, canyons

4. Include symbols that were important to the people in your region.
☐ ☐ ☐   a)   religious symbols
☐ ☐ ☐   b)   job-related symbols
☐ ☐ ☐   c)   celebration or holiday symbols

☐ ☐ ☐ 5. Include important or famous people.

☐ ☐ ☐ 6. Include important or famous sayings or documents.
☐ ☐ ☐ 7. Cite the sources (3) of all information given.

Format:

☐ ☐ ☐ 8. A minimum of eight slides, each with a uniform background and layout style.
☐ ☐ ☐ 9. Easily seen and understood navigation buttons.
☐ ☐ ☐ 10. A logical organization and structure for the stack.
☐ ☐ ☐ 11. Readable text.
☐ ☐ ☐ 12. Clear graphics.
☐ ☐ ☐ 13. Sounds and movies used to add to the understanding of the topic. (extra credit)

Check off each box as you complete the items listed. After you have finished your stack, indicate your region and sign your names below.

Region or Colony **_____**

_____   **_____**
       (student)   (student)

_____   **_____**
       (student)   (student)

What might be added to this checklist?