

POD —IDEA Center Notes

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IDEA Item #9: “Encourages students to use multiple resources to improve understanding”

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Background

A few years ago, when the information world was highly structured and key resources could be found on the shelves of any respectable college/university library, getting students to use scholarly and other resources was a rather straight-forward matter. Assignments indicated what specific (mostly print) resources formed the ‘universe’ from which students could choose and they, sometimes with the assistance of a librarian, would go directly to the desired books or journals. All this changed dramatically with the introduction of the Internet and the proliferation of online resources. Access to information resources has now become almost universal and mostly unfettered. One might assume that student research and use of resources would have improved dramatically.

Reality, though, is far from satisfactory. The challenges facing today’s information-seeker are far different from those of only a few years ago (1). With the proliferation of resources, both instructors and students must become proficient in: accessing appropriate information, evaluating and validating credibility of sources and of information, selecting resources to use, and integrating resources into their research and/or assignments. In too many cases, assignments have not kept pace with the changing information environment. An emphasis on using multiple resources is especially important in classes stressing life-long learning, communication skills, critical analysis, and the development of personal values. But in today’s “information society,” being able to find and use resources will be increasingly relevant regardless of a class’ specific objectives. Expediency and lack of training are the most common reasons for students’ inability or unwillingness to explore varied resources and to search for them in any ways other than the most superficial ones. The basic role of instruction is still essentially that of

structuring opportunities for students to learn and being able to

demonstrate their learning. However, the controlled, comfortable world of academic resources has given way to an open-ended, highly diverse, and often surprisingly rich universe of information. Using multiple resources has become a more complex and layered activity, but one that instructors can promote successfully when they are willing to move away from old customs. This is one of those unique instances where both instructors and students are learners (2).

Helpful Hints

For students to be able to use multiple resources, it is essential to help them acquire information literacy (IL) skills, to provide proper assignments, and for the instructor to serve as a coach as well as a teacher. Some simple actions can have a profound effect. *Hug a Librarian!* Academic libraries have been undergoing a remarkable transformation in response to the changing world of information. Many key academic publications have switched to electronic formats and librarians have become some of the most knowledgeable professionals in the field of IL. Libraries’ instructional services provide a variety of support – from assistance with the re-design of research assignments to the training of students in basic online search techniques. Having a librarian, especially one versed in your discipline, as a ‘curriculum buddy’ is both practical and rewarding. Schedule an early session with a librarian who will instruct students in ways to access appropriate databases, evaluate the quality of resources, make sound decisions about the use of resources, and cite sources properly (3).

Create a Course Resource Bank. It is obviously no longer wise to give assignments that ask students to “come up with 2-5 good resources.” One can also argue that providing specific resources may stifle learning. A valuable solution is to create a

comprehensive resource bank that includes a variety of credible resources from which students can choose and to which they can contribute. It should include a list of professional journals, relevant web sites, U.S. government documents (great for statistical data), and a list of prominent scholars/experts in the field.

Consider Problem-Based Learning (PBL). PBL is an approach that introduces students to a problem or dilemma prior to studying the relevant material. The first two tasks students face are “What do I need to know in order to address the problem?” and “Where will I find the information?” With PBL, students take ownership of their own learning, and are therefore explore the problem more deeply. PBL dilemmas may be very simple or very complex; the common thread is that students are clearly aware of the need for information and its importance for completing the assigned tasks (4).

Establish Resource Expert Teams. Students can be charged with identifying quality resources not just for themselves but also for classmates. If the entire class is assigned a common topic, groups of students can be tasked with identifying key journals, books, videos, etc. If a variety of topics are available, groups of students who chose a common topic can develop a resource bank for that topic. In either case, some specific guidelines from the instructor and a checklist (see Assessment Issues below) need to be provided. Resources can be posted on a course web site or circulated in print.

Evaluate Course Materials Critically. Sometimes textbooks and other materials are so highly ‘digested’ as to stifle students’ curiosity and creative thinking. Rather than ‘covering’ the text, look for opportunities to use student-generated information. Students can be asked to find examples of applications of the principles described in the text, studies that verify or dispute textual information, or alternative approaches.

Documented Debates. Choose issues or problems that can generate multiple points of view. After students identify the diverse points of view, randomly assign each to a portion of the class (i.e., if there are 5 points of view, there will be 5 groups). Each student’s task is to come up with resources to support that position. In class, call on random groups of students to debate the issue in front of the class, supporting their arguments with the information for the resources they cite.

Assessment Issues

Assessment of learning is best when it is continuous and when it provides students with useful and timely feedback. As in all successful instructional planning, the goals of the course, course execution, and learning assessment need to be aligned with each other. When learning to use multiple resources is a goal of the course, then the course’s content and format should include opportunities for students to learn how to do it

well, and assessment tools should be able to gauge how well they have learned it. Bloom’s “Taxonomy of Educational Objectives” (5) provides an excellent guide for determining such alignments. Once the goals and course content and format are set, the assessment approaches listed below can be developed and implemented.

The first thing to do is to *create a template based on the National Information Literacy Standards* (6). The information-literate student is able to define and articulate the need for information, access it effectively and efficiently, evaluate it and its sources critically, integrate it into a knowledge base, use it effectively to accomplish a specific purpose, and understand issues surrounding the use of information. A companion piece is a template that requires students to provide a ‘road map’ to the resource used (how did one get to find the resource) and a S.T.A.R.T. evaluation of the information (**S**cope, **T**reatment, **A**uthority, **R**elevance, **T**imelines) (7). *A second, highly effective approach to assessing student use of resources is through guided projects.* Rather than assign a total research project early in the term and expect the finished product at the end of the term, the instructor structures a process by which well-defined segments of the project are drafted and turned in for feedback and partial credit. These segments should include the tools mentioned in the previous paragraph.

References and Resources

- (1) Baron, L. (2001). Information-driven teaching and learning. *NEA Higher Education Advocate*, 18(8), 5-8.
- (2) Breivik, P. S. (1998). *Student Learning in the Information Age*. Phoenix: American Council on Education/Oryx Press. See Chapter 2.
- (3) Rockman, I. F. & Associates (2004). *Integrating Information Literacy into the Higher Education Curriculum*. San Francisco: Jossey-Bass. See pages 29-46.
- (4) <http://www.udel.edu/pbl> at the U of Delaware provides a gateway to many useful PBL links and information. Retrieved June 17, 2005.
- (5) Bloom, B.S., et. al. (1956). *Taxonomy of Educational Objectives: Cognitive Domain (Handbook 1)*. Dallas: McKay Co. A brief synopsis of the newly revised taxonomy is available at: <http://coe.sdsu.edu/eet/Articles/bloomrev/index.htm> Retrieved June 17, 2005
- (6) Association of College & Research Libraries. (2002). Information Literacy Competency Standards for Higher Education. Retrieved June 17, 2005 from www.ala.org/ala/acrl/acrlstandards/standardsguidelines.htm
- (7) Iannuzzi, P., Mangrum II, C. T., & Strichart, S. S. (1999). *Teaching Information Literacy Skills*. Boston: Allyn and Bacon. See page 143.